

Socio-Environmental Regulatory Governance Aspects of Thermal Power Plants in Telangana

Issues, Challenges and Ways Forward



Research Report: Jan-Dec, 2017

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A lot has been researched and written within Telangana and across India on the subject matter and this Report adds precious little to radically redefine the discourse. However, it humbly attempts to closely observe the trajectory of a few TPPs in the new state, the regulatory framework and tries to offer a specific set of suggestions that could be considered by the concerned authorities and civil society in the short, medium and long-term to improve the socio-environmental regulatory governance of Thermal Power Plants, both in Telangana and elsewhere. Any and all conclusions, inferences as well as errors in the Report are my sole responsibility. Any feedback is welcome and appreciated.

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Index of Abbreviations

Acronym	Full Form	Acronym	Full Form
ASSO CHAM	Associated Chambers of Commerce and Industry of India	LIFE	Legal Initiatives in Forests and Environment
BTPP	Bhadradi Thermal Power Plant	MoEF & CC	Ministry of Environment, Forests and Climate Change
CAG	Comptroller and Auditor General	MoP	Ministry of Power
CII	Confederation of Indian Industry	NABET	National Accreditation Board of Education and Training
CPCB	Central Pollution Control Board	NGT	National Green Tribunal
CTE	Consent to Establish	NTPC	National Thermal Power Corporation
CTO	Consent to Operate	OCMMS	Online Consent Management and Monitoring System
CSO	Civil Society Organization	OM	Office Memorandum
CSR	Corporate Social Responsibility	PEG	Prayas Energy Group
DM	District Magistrate	PESA	Panchayats (Extension to Scheduled Areas) Act, 1996
EAC	Expert Appraisal Committee	PP	Project Proponent
EC	Environmental Clearance	QCI	Quality Council of India
EIA	Environment Impact Assessment	RO	Regional Office (of MoEF & CC)
EMP	Environment Management Plan	R&R	Resettlement and Rehabilitation
EPA	Environment Protection Act, 1986	SC	Supreme Court
EPH	Environmental Public Hearing	SEIAA	State Environment Impact Assessment Authority
EPTRI	Environment Protection Training and Research Institute	SERC	State Electricity Regulatory Commission
ERC	EIA Resource Centre, New Delhi	SIA	Social Impact Assessment
ETP	Effluent Treatment Plant	SPCB	State Pollution Control Board
FCI	Fertilizer Corporation of India	T-JAC	Telangana Joint Action Committee
FICCI	Federation of Indian Chambers of Commerce and Industry	ToR	Terms of Reference
FRA	Forest Rights Act, 2006	TPP	Thermal Power Plant
GO	Government Order	TRS	Telangana Rashtra Samiti
GoI	Government of India	TSGENC O	Telangana State Generation Corporation
HRF	Human Rights Forum	TS-iPASS	Telangana State Industrial Projects Approval & Self Certification System
IEC	Information, Education & Communication	TSTPP	Telangana Super Thermal Power Plant
KICS	Knowledge in Civil Society	UoI	Union of India
KTPS	Kothagudem Thermal Power Station	YTPP	Yadadri Thermal Power Plant
LARR	Land Acquisition, Resettlement and Rehabilitation Act, 2013	ZLWWD	Zero Liquid Waste Water Discharge

Executive Summary

The present work is based on a one-year study, enabled by a Fellowship from the Girish Sant Memorial Committee (GSMC), Pune and focuses on the regulatory institutional and procedural mechanisms governing the social and environmental aspects of Thermal Power Plants (TPPs) in the country, by way of an in-depth assessment of certain newly proposed/under construction (including expansion units) and old/operational plants in Telangana. Along with a detailed assessment of the socio-environmental gaps and issues around the four identified projects, the study tries to make certain generic observations and suggestions to strengthen the regulatory mechanisms. While some of these are process-specific related to EIA, public hearing and social impact areas, others are institution related i.e. on the role of PCB, EAC, MoEF & CC and civil society.

The identified TPPs constitute important case studies for understanding the governance gaps and challenges of various regulatory institutions with regard to scrupulous compliance of laws relating to social and environmental aspects of TPPs. Projects identified in this study include:

1. Bhadradi (4 x 270 MW) TPP – Dist. Kothagudem [*Operated by TSGENCO*]
2. Yadadri (8 x 500 MW) TPP – Dist. Nalgonda [*Operated by TSGENCO*]
3. Ramagundam (Old 2600 MW + 2 x 800 MW) TPP – Dist. Peddapalli [*Operated by NTPC*]
4. Kothagudem (Old 1720 MW + 1 x 800 MW) TPP – Dist. Kothagudem [*Operated by TSGENCO*]

The study does not delve into the details of power requirements in the new state nor the actual socio-environmental impacts of TPPs. Instead, the thrust of the study is on the often less-addressed aspect of the social and environmental regulatory governance aspects, by looking at the role of key institutions such as the Pollution Control Board (PCB), Expert Appraisal Committee (EAC), Ministry of Environment, Forests and Climate Change (MoEF & CC) and to a certain extent the National Green Tribunal (NGT) and their interface with various actors such as the state government, project proponents, civil society, consultants, media etc. Some of the key issues covered in the study include environmental impact assessments and monitoring, environmental clearance, land acquisition and rehabilitation, covering the entire project life including planning, construction and operation.

Coal-Fired Thermal Power Plants (TPPs) contribute a lion's share to the installed power capacity of this country, about 76% of the total electricity produced. Over the decades, the social and environmental impacts and implications of these plants have been a major cause of concern, both to the government and civil society. A 2011 study by the Prayas Energy Group indicated that while the national installed thermal capacity was 1,13,000 MW, proposed additions were more than six times this capacity and more than three times the capacity required to meet the needs of the high renewables-high efficiency scenario for year 2032 projected by the Planning Commission's Integrated Energy Policy report.

It is widely perceived that while power generation and capacity additions have been duly prioritized, the social-environmental impacts of Thermal Power Plants and related governance issues have not received due attention from the authorities. The past two decades, however, witnessed the slow evolution of a legal and regulatory regime that governs these plants. While on the one hand, climate change and cheaper availability of renewable energy sources are pushing governments and project proponents to re-consider prioritizing thermal plants, we are still, as a country, grappling with the socio-environmental costs of numerous TPPs that have come up in the past decades as well as quite a few plants that are in the offing. At the heart of this, lies the role of the regulatory institutions that have a mandate to ensure compliance with law, protection of environment and rights of affected communities.

Telangana is the newest state of India, formed in June, 2014 after a protracted democratic struggle for separate statehood. One key aspect, which has been felt 'lacking' and therefore 'necessary' by the first Government is availability of power for various agricultural, domestic, industrial and commercial activities. It was this sense of perceived urgency that has led the Govt. to propose certain new thermal power plants in the state, along with expansion of capacities at some operational plants. Thus, the new plants Bhadradi (4 x 270 MW) TPP at Dist. Kothagudem, Yadadri (8 x 500 MW) TPP at Dist. Nalgonda and expansion units i.e. NTPC Ramagundam (2 x 800 MW) TPP at Dist. Peddapalli and Kothagudem (1 x 800 MW) TPP at Dist. Kothagudem were proposed since the formation of Telangana. This Study broadly tries to focus on two key areas: i) A gist of Key Environmental,

Social, R&R Issues and Violations of the aforesaid projects ii) Key Observations and Suggestions on the institutional regulatory mechanisms and processes, in the light of these studies.

Project Specific Concerns:

Of the aforesaid four projects, the 4 x 270 MW Bhadradi has remained controversial since inception, both for the choice of outdated, environmentally less efficient technology as also for beginning construction without due approvals from the regulatory authorities and continuing with construction even after a *status quo* Order by the NGT. It is indeed notable that neither of the regulatory authorities i.e. PCB and MoEF & CC took action against the TSGENCO, on their own, for undertaking construction without EC and CTE nor did the NGT take action for violating its *status quo* Order. The exemption granted by NGT to the TSGENCO from the polluter pays principle, on the ground that the costs have to be borne from the public exchequer is questionable and sets an unhealthy precedent.

The Order of the Tribunal directing criminal action against TSGENCO officials within 4 weeks and expeditious completion of prosecution was not complied with in true spirit, as even 15 months since the Order, proceedings were reportedly initiated only against some lower-rung engineers, but not the senior, decision-making officials, as per local activists. The Public hearing was held in a climate of surveillance and voices that tried to raise socio-environmental concerns were muzzled. As per locals, relevant information about EIA, SIA, LAQ, R&R process was not given by officials, land records were not updated, women land holders have been denied R&R and 'non-adiyasi' land owners in Schedule V area have been compensated! Social Impact Assessment (SIA), as required under LARR Act, 2013 was not conducted and the various procedures to be followed under the Act were not scrupulously followed. Despite two extensions by the MoP to finish project work using sub-critical technology, the project is yet to be fully completed and take off!

A study of the issues around the 5 x 800 MW Yadadri Project also reveal similar concerns of underplaying the serious socio-environmental issues. While the Minutes of the Forest Advisory Committee (FAC), based on PP's figures state that '2503 families are likely to be displaced', the EIA at two different places states that 173 & 413 families would be affected! Field visits also confirmed that Social Impact Assessment (SIA) was not done, leading to complete exclusion of large numbers of landless dalit families and injustice to assigned land holders, forest dwellers and adivasi cultivators in the R&R process. Public Hearing was held without adequate information to people regarding EIA, SIA report. Very little participation by women, landless etc was ensured by the PP and PCB in the entire process. The various procedures as stipulated in the LARR Act, 2013 were not followed.

Despite the EAC concluding that the initial EIA Report was 'plagiarized', MoEF granted exemption from re-doing the full EIA process including public hearing, violating its own OM of 5th Oct, 2011 and granting EC. This raises serious questions about the legal validity of the clearance granted to YTPP itself. Moreover, even after EAC discredited Consultant M/s Bhagavati Ana Labs Pvt. Ltd (BALPL) for 'plagiarism' and MoEF wrote to NABET to delist it, BALPL continues to be on the roll of accredited consultants of NABET! The project is to be constructed on a 3.9 kms natural stream, thus eliminating it permanently, but the EAC's Sub-Committee ignored this crucial aspect. The project site is barely 0.8 kms from the Andhra border, but no public hearing has been conducted in that state, violating Clause 2.1 of EIA Notification.

The manner of clearing new / expansion units by MoEF and grant of consent to operate by PCB, even as complaints of non-compliance and violations due to old units persist, also brings forth a certain pattern of regulatory failure, as observed in the case of NTPC Ramagundam and Kothagudem TPPs. At both places, one of the most pressing issue continues to be the impacts of unregulated air and water pollution, lack of access to potable water and severe health concerns like cancer, asthma, respiratory, gynecological problems, back, knee, kidney related and other ailments, with little health care support from project-authorities. Impacts of pollution on livestock is also a crucial concern for many villagers. The Public Hearing for 2 x 800 expansion units of Ramagundam was held in May, 2015 wherein numerous issues of pollution due to existing units, lack of jobs and R&R were raised, but little redressal followed. The new units appears to have been recommended by EAC in a 'fast-track' mode, between two meetings spanning over a month, without the Committee carefully verifying the grave ground status, revealed partially by the monitoring report of MoEF's RO, obtaining complete details and ensuring full compliance of previous conditions. The EC,

granted in Jan, 2016 is now challenged before the NGT. Notably, even the Cumulative Impact Assessment was done after EC was challenged before NGT.

The 1 x 800 MW expansion unit of Kothagudem Thermal Plant was cleared by MoEF on 16th July, 2015, subject to numerous conditions including no further expansion and land acquisition, phasing out of old units which, as per PCB's own records have been causing high pollution. Although Telangana PCB wrote to TSGENCO, pointing out serious air and water pollution and threatening refusal of permissions to the expansion of KTPS, it soon mellowed down and recommended to MoEF that the expansion unit can be cleared. As per PCB's former Environmental Engineer, between 2007-2014, the PCB issued 10 notices to KTPS for environmental violations, but did not take penal action. Field visits confirm that untreated effluents from the Plant continue to be released into the *Karakavagu* and from there into the Kinnerasani river, causing water pollution. Similar to the public hearings of all projects studied, despite the presence of a few thousand people, only a handful had the opportunity to speak and most of them were political party representatives.

Key Observations:

At a fundamental level, some of the minimum procedures prescribed in the EIA Notification, 2006 are also not fully followed ! The **Project Proponent and PCB hardly make an attempt to create meaningful and holistic awareness of Project and its impacts.** There appears to be **no cogent criteria for determination of 'speakers' at the public hearings - most speakers happen to be political party representatives,** and there is very limited space for women, adivasis, dalits, forest cultivators, landless, small farmers to voice concerns, in the projects studied. Project work and public hearing in particular is often undertaken in an **intimidatory atmosphere, with police presence** and harassment of civil society activists. **No Social Impact Assessment (SIA)** conducted in any of the projects studied ! Most procedures and safeguards in the Land Acquisition and Rehabilitation (LARR) Act, 2013 are not followed. The EIA itself has very limited details on R&R issues. There is **no verification of Social Impacts, R&R issues by EAC.**

Weak scrutiny of EIA Report by the MoEF, is a major concern. Grant of EC to expansion projects without full verification of due compliance of previous EC conditions (KTPS and Ramagundam) or grant of EC in violation of OM when plagiarism has been alleged by EAC (Yadadri), is a **serious omission at the highest level (MoEF).** There is a **clear paucity of staff (esp. legal officers) and capacities at Regional Offices** to monitor and pursue violations. Lack of co-ordination between MoEF, its ROs and PCB, such as on receipt of compliance reports and prompt action is indeed hampering efficient monitoring. **MoEF is yet to implement the range of recommendations issued by the CAG in 2016, esp. on streamlining of its own circulars, processes, instituting surprise checks, strengthening PCBs etc.**

EAC's *modus* of considering too many projects in too little time, has a serious impact on quality of its appraisal. Issues raised during public hearing are not discussed and deliberated in the EAC meetings. The expert body clearly lacks a functional mechanism for detailed consideration of claims and counter-claims by Project Proponent, independent experts, civil society etc. The **PP is often represented by Consultant before EAC, but there no space for civil society and affected people's views within EAC.** R&R Issues and Social Impacts poorly dealt with or often ignored by EAC, which also lacks expertise on these matters.

Despite established and admitted cases of violations, the **PCB has been very reluctant to initiate penal powers against polluters & violators.** The Board has a **restricted autonomy** and is governed, staffed mostly by state government officials. PCB has a weak legal cell, limited trained staff and monitoring capacities in districts and plant-areas. The Board has **granted consent to expansion projects despite gaps in compliance of previous consent conditions.** It is indeed revealing to find **no space for affected people and CSOs in the entire process of preparation of EIA.** Likewise, the **views of affected communities and CSOs is not taken seriously by PPs, PCB, EAC, MoEF.** The ground situation indicates a clear **need for more capacity-building of CSOs.** Often, there is a lack of enough collaboration amongst civil society groups as well as **lack of long-term engagement by CSOs from the stage of project proposal to post-construction stages.** There is also an evident paucity of effective IEC materials in vernacular to generate awareness amongst people and activists, alike.

Key Suggestions:

For effective public hearings, **PCB & Legal Service Authorities could hold mass awareness camps**, with new technology based IEC materials, for local bodies & communities, at least 2 months before hearing, with law, enviro, social work students as trained para-legals. **Authorities must ensure adequate representation of every category of affected - women, adivasis, dalits, forest cultivators, landless, small farmers in the hearings.** The **EC, EAC minutes, consent letters, monitoring reports and periodic compliance reports must also be translated into regional languages and widely publicized** in the affected areas, to enable local communities and local citizen's action groups to verify compliance of these conditions.

PCB must initiate a process of annual / biennial project-specific hearings from the date of grant of EC, to effectively understand and address the issues related to non-compliance on socio-environmental concerns and conditions in EC, CTE, CTO. **An Oversight Mechanism must be instituted to ensure full implementation of all provisions of LARR Act, 2013 & PESA, Act, 1996.** An Independent Environment Support Agency for overseeing the EIA process, environmental awareness, generation of IEC materials, pre-public hearing information dissemination etc must be set-up at the earliest.

MoEF must have a dedicated and competent Wing to thoroughly verify EIA Reports before they are sent to EAC and after receipt of recommendations from EAC to ensure compliance with all ToRs, technical, legal and environmental stipulations. Instead of PP's directly selecting the Consultants, **MoEF & CC could randomly assign accredited consultants to PPs**, from a thematic pool. MoEF must ensure expeditious implementation of recommendations of CAG, esp. on streamlining of circulars, monitoring of compliance reports etc. **The Regional Offices of MoEF need to be strengthened** with adequate environmental, legal officers and they must be empowered to take action against violators. MoEF must withhold fresh EC, until all previous EC and consent conditions are complied with.

Akin to NGT Benches, appointing **Five Zonal Thematic EACs in North, South, East, North-East and West + Central zones, with credible experts, functioning at least 15 days a month** would help reduce work load and enable qualitative appraisal. **Environmental and social organizations must be permitted to make depositions / participate at key stages of the EAC deliberations** (esp. before grant of clearance). Like Consultants, a state-wise list of such experts and organizations could also be invited to be on a regular Panel of the MoEF. EAC must also comprise of independent experts from legal, social science backgrounds to look into these concerns.

In order to function effectively, **PCB must be autonomous and chaired by a reputed and credible environmentalist** and also have at least 3 independent environmentalists. State Governments, including the Government of Telangana must frame **recruitment rules for PCB as per SC Order dt. 22/9/17 immediately.** The Board must have a strong legal cell to pursue cases of violations and initiate action. Recruitment and capacity building of adequate staff, esp. enviro inspectors, legal officers in all the districts must be taken up.

Affected people and **CSOs must be involved at various stages of the EIA process**, including during baseline data collection. **CSO Representation in EAC, PCB** is very much necessary. There is also need for regular channels of dialogue between CSOs, PCB and Government. Regular **Capacity Building of CSOs** by EPTRI, PCB and also non-state expert groups must be taken up. **Mass production and dissemination of IEC materials in vernacular** would strengthen the public hearing and post-EC monitoring process. There is a **need to sustain grassroots CSOs over longer periods** and build collaborations between them.

This Report is a small addition to the significant body of work that is already in the public domain on the socio-environmental governance processes of power plants in the country. It is hoped that the observations and suggestions in this Report would be relevant to and considered in right earnest by the appropriate authorities, expert bodies, civil society groups and concerned citizens in strengthening the overall governance framework, in the interest of the environment, people and the nation.

PART I: INTRODUCTION

1. About The Study

The one-year study was enabled by a Fellowship from the Girish Sant Memorial Committee (GSMC), Pune granted in Jan, 2017 and guided by the Prayas Energy Group (PEG) Pune. The study topic was chosen, in consultation with the GSMC and PEG, recognizing the need for a critical review of the regulatory institutional and procedural mechanisms governing the social and environmental aspects of Thermal Power Plants (TPPs) in the country, by doing an in-depth assessment of some recently proposed/under construction (including expansion units) and old/operational plants in Telangana. The following Projects identified in this study constitute important case studies to demonstrate how the various regulatory institutions are faring and may be even failing with regard to scrupulous compliance of laws relating to social and environmental aspects of TPPs.

1. Bhadradi (4 x 270 MW) TPP – Dist. Kothagudem [*Under construction by TSGENCO*]
2. Yadadri (8 x 500 MW) TPP – Dist. Nalgonda [*Under Construction by TSGENCO*]
3. Ramagundam (Old 2,600 MW + 2 x 800 MW) TPP – Dist. Peddapalli [*Operated by NTPC*]
4. Kothagudem (Old 1,720 MW + 1 x 800 MW) TPP – Dist. Kothagudem [*Operated by TSGENCO*]

The present study does not go into the merits of the power requirements in the new state nor even the details of the actual socio-environmental impacts of TPPs. Instead, the thrust of the study is on the often less-addressed aspect of the social and environmental regulatory governance aspects, by looking at the role of key institutions such as the Pollution Control Board (PCB), Expert Appraisal Committee (EAC), Ministry of Environment, Forests and Climate Change (MoEF & CC) and to an extent the National Green Tribunal (NGT) and their interface with various actors such as the state government, project proponents, civil society, consultants, media etc. Some of the key issues that have been covered in the study include environmental impact assessments and monitoring, environmental clearance, land acquisition and rehabilitation, covering the entire project life including planning, construction and operation.

The broad purpose of the study is to:

1. Understand the governance processes as well as role of key institutional actors involved in the socio-environmental regulatory governance of coal-fired thermal power plants in India, within the context of certain TPPs in Telangana.
2. Review existing mechanism of regulatory governance, especially the policy and legal framework and enable a sharper understanding of the regulatory systems, gaps and violations in order suggest both mid-term and long-term structural changes and ways forward.
3. Locate and strengthen space for participation of civil society actors in engaging with these institutions for ensuring compliance with the socio-environmental and legal obligations.

The study methodology adopted included:

- a. **Detailed Appraisal of Project Documents** including Application for EC (Form-I), Final EIA Report, correspondence between the PP and various authorities, submissions made by various stakeholders to the MoEF, guidelines and notifications of MoEF, EAC Minutes, clearances by MoEF and consent by PCB, submissions before the NGT, Orders of the NGT, media reports, critiques by independent experts etc. and also information from the web and in public domain.
- b. **Interactions** with EAC member, PCB Secretary, independent experts, environmentalists, media persons, activists, lawyers, researchers working on various aspects of TPPs [List annexed]

- c. **Field Visits** to the affected villages, detailed interactions with the affected persons, documenting field notes from project-affected areas. [Details in the Report]
- d. **Filing RTIs** with relevant govt. agencies and departments for information.

2. Thermal Plants in Telangana: An Overview

It is well-known that the formation of Telangana, the newest state of India in June, 2014, was preceded and made possible by almost 6 decades of popular aspirations and protracted democratic struggle for separate statehood. Besides assertion of their identity and culture, the demand was fired by a strong will for self-rule and democratic, balanced regional development. One key aspect, which had to, therefore be addressed by the first Government was assured availability of power for various agricultural, domestic, industrial and commercial activities. It was this sense of perceived urgency that led the Government to propose certain new thermal power plants in the state, along with expansion of capacities at some operational plants.

The TRS Manifesto, 2014¹ reflects this sentiment and promised a paradigm shift in its approach in all sectors, including the Energy / Electricity sector, which it listed as the second most important area of governance, only next to water resources. The Manifesto made claims of making Telangana a self-sufficient state with surplus power, zero power cuts, establishment of 10 thermal power plants (13,200 MW) leading to jobs and livelihoods for a lakh people. The Manifesto, however, was silent on aspects such as equitable distribution of power as well as socio-environmental and financial sustainability of the TPPs, both proposed and existing plants.

Notably, the *Committee for Consultations on the Situation in Andhra Pradesh*², headed by Jst (Retd) B N Srikrishna (Retd.) constituted to study and recommend on the question of separate statehood for Telangana, suggested in their Report dt. 30th Dec, 2010 that “*Higher priority may be considered for setting up more thermal power plants in Telangana region because of proximity of Singareni coal mine and to reduce the perceived imbalance in thermal generation capacity*”. In its submissions³ to the Environment Ministry as well, Govt. of Telangana stated that the State has been facing substantial power deficit resulting into severe power cuts in industrial, domestic, commercial and agriculture sectors and, therefore, requires substantial addition (through coal-based power generation) to amplify its power generating capacity and meet power demand of these sectors.

Thus, the Bhadradri (4x270 MW) TPP at Manuguru, Bhadradri Kothagudem Dist, Yadadri (5x800 MW) TPP at Damacharla, Nalgonda Dist, New Unit of NTPC (2 x 800 MW) at Ramagundam, Peddapalli Dist and New Unit of KTPS (1 x 800 MW) at Bhadradri Kothagudem TPP was proposed since the formation of Telangana. Singareni⁴ (2 x 600 MW) TPP⁵ was also commissioned in September, 2016 i.e. only two years after the state came into existence. Another expansion unit of 800 MW is under way at Singareni, public hearing for which was held recently on 7th March, 2018⁶, amidst

¹ <http://trspartyonline.org/wp-content/uploads/2014/04/INNER.pdf>

² Pg 243 (Sec 4.19), Shri Justice B N Srikrishna (Retd.), *Committee for Consultations on the Situation in Andhra Pradesh*, Dec, 2010: Available at: <http://pib.nic.in/archieve/others/2011/jan/d2011010502.pdf>

³ Page 61 (Chapter 1,) Final EIA Report submitted by TSGENCO for proposed 1x800 MW Supercritical Coal Based Kothagudem Thermal Power Station (Stage- VII) at Paloncha Village & Tehsil, Khammam District, Telangana. Available at: <http://environmentclearance.nic.in/writereaddata/EIA/180920143AXTGHEYKTPS-EIAEMP.pdf>

⁴ Owned and Operated by the Singareni Collieries Company Limited, Mancherla

⁵ <https://www.thehindubusinessline.com/news/national/modi-to-dedicate-singareni-thermal-power-plant-to-nation/article8952733.ece>

⁶ <https://timesofindia.indiatimes.com/city/hyderabad/singareni-thermal-power-plant-public-hearing-on-march-7/articleshow/62798732.cms>

protests⁷. The 1 x 600 MW expansion Unit of Kakatiya TPP⁸ was also dedicated by CM of Telangana in Jan, 2016. For reasons of lack of time, the Singareni and Kakatiya plants have not been studied in detail in this Report.

Telangana Power Generation Corporation Limited (TSGENCO), the State Public Sector undertaking engaged in power generation including operation and maintenance of the power plants, was incorporated under the Companies Act, 2013, on 19th May 2014 and commenced its operations from 2nd June, 2014, after bifurcation of state as per the State Re-organization Act. The installed capacity of TSGENCO then was 4365.30 MW, comprising 2282.50 MW Thermal, 2081.80 MW Hydro, 1MW solar power stations, and contributes about half the total Energy requirement of Telangana.⁹

In December, 2015, Govt. of India and GoT entered into a Joint Initiative called “Power for All”, with an aim to substantially increase capacities and enable “24x7 power to all households, industries, commercial establishments, all public utilities and adequate (9 hrs per day) power to agriculture”. The Joint Agreement projects that the maximum power to be available by 2019 would be a whopping 29,657 MW. Here again, there was little reference to socio-environmental aspects in the 128 page document¹⁰, which, otherwise is replete with details of increasing physical infrastructure and power generation. While generation of additional power may be desirable, the financial, ecological and social factors and impacts need to be considered, was a critique and concern from civil society.

A major concern in the state is also that the TS Transco is losing almost 1,000 crores per year due to delay in submission of a report by the High-Level Panel constituted by the Govt. of India to go into the power sharing dispute between AP and TS. As per the Andhra Pradesh Reorganization Act, 2014, Telangana has 54% share in the thermal plants in Andhra Pradesh, while Andhra Pradesh has 44% of share in Thermal Plants in Telangana. However, TS is purchasing thermal power from AP at a higher cost while selling the thermal power produced in the state at a lower price. Notably, the Telangana Joint Action Committee (T-JAC) passed a resolution on 23rd March, 2017¹¹ demanding that the Government of Telangana cancel the Power Purchase Agreement (PPA) with the Government of Andhra Pradesh, as the PPA would impose an additional burden of Rs 1,000 crore in the coming year.

The proposal to establish new thermal plants has not been without controversy and questioning, by the affected people, civil society and regulatory authorities. For instance, the decision to opt for sub-critical, instead of super critical technology in the case of Bhadradri TPP was questioned by the EAC and Ministry of Power. Likewise, construction of the Bhadradri Plant without approvals from the MoEF and PCB was also questioned and stayed by the NGT for almost a year, directing penal action against officers for legal violations. In the case of Yadadri TPP, the EAC directed TSGENCO to get a fresh EIA Report prepared as the Report prepared by the Consultant was plagiarized. In both cases, the Chief Minister personally met with the Minister of Power¹² to ‘expedite’ the clearance process and reportedly stating that no environmental violations had taken place in either of the projects.

⁷ <https://telanganatoday.com/singareni-power-project-oustees-seek-jobs>

⁸ <https://www.thehindubusinessline.com/news/telangana-cm-dedicates-kakatiya-thermal-plant-stageii/article8068610.ece>

⁹ See Supra, EIA Report (Page 61)

¹⁰ Power for All: Telangana State: A Joint initiative of Govt. of Telangana and Govt. of India (Dec, 2015): Available at: http://powermin.nic.in/sites/default/files/uploads/Power_For_All_4_12_Final_Telangana_Signed.pdf

¹¹ <http://www.thehansindia.com/posts/index/Telangana/2017-03-24/TJAC-demands-cancellation-of-PPAs-with-AP/288717>

¹² <https://energy.economictimes.indiatimes.com/news/coal/kcr-asks-piyush-goyal-to-expedite-approvals-for-5080-mw-power-projects/55534034>

The visit by the Environment Ministry's Regional Office to NTPC's plant at Ramagundam, brought forth certain violations of the conditions stipulated previously. The clearance issued by MoEF to the new Unit has been challenged before the NGT. Noting the levels of pollution caused by the existing units of KTPS, the EAC directed that no fresh units beyond the 1 x 800 Unit shall be established and no additional land acquisition shall be permitted. These aspects have been dealt with in detail in the chapters on the said TPPs.

One may note here that not only in the context of the electricity and energy sector, but in other areas such as farming, industry, water resources etc, the civil society has been expressing different views and concerns, and this has continued even 3 years after the formation of the new state. These aspects are not being dealt in this report, since the primary focus here is of regulatory governance of TPPs. However, as a state whose formation itself is deeply grounded in democratic aspirations and mass participation of the common masses including the agrarian communities, youth, students, women, project-oustees, employees and other progressive sections, the role of civil society is significant in understanding regulatory governance. It is within this context of the larger aspiration for a 'Democratic Telangana', that the present study attempts to look at how gaps in the process of upholding and adhering to socio-environmental regulatory governance norms of thermal power plants have a bearing on people's rights and compliance with law.

Many civil society activists and energy experts who played a key role in the Telangana movement appear to be at discord or rather disturbed by the GoT's approach on pushing for massive generation without attempting to approach the sector-concerns in a composite manner, refusal to consider alternatives and inequitable prioritization of the electricity consumers. Activists and experts have also been expressing concerns over the social and environmental costs of these projects, their financial viability as well as the lack of options assessment and participatory governance.

Prof. Kodandram of the Telangana JAC has been arguing that GoT must rethink its power strategies and promote alternative energy¹³. Dr. M. Thimma Reddy of the People's Monitoring Group on Electricity, called out the GoT for awarding power plants contracts without following the open competitive bidding method, thereby increasing stress on state revenues and eventually burdening the end consumers by increased tariffs. However, in view of the larger industrial projects and lift-irrigation projects, the state government considers that these decisions do meet the goals of wider public interest.

The saga of socio-environmental impacts due to existing thermal plants is also a serious concern that has been raised time and again by the local communities and civil society groups. This includes issues of operational plants such as the 1 x 500 MW Kakatiya Thermal Plant, operational since 2010 (Warangal) various units of 2,600 MW NTPC TPP, operational since 1980s (Ramagundam) and 1,720 MW Kothagudem Thermal Plant unit, operational since 1960s (Palvancha).

Quite a few plants, especially the units at Kothagudem and Ramagundam, established since 1966 and 1978 respectively are sub-critical units and have become less efficient over a period of time, besides increasing the magnitude of environmental pollution (as would be seen from the EAC Minutes in the later parts of this Report). Infact, 8 out of the 11 Units at the 1,720 MW Kothagudem Thermal Power Station are 36 to 48 years old, contributing to plant inefficiency and pollution. During consideration of proposals for expansion of capacities at both these places, EAC recommended the

¹³ <https://economictimes.indiatimes.com/industry/energy/power/telangana-set-to-build-power-plants-against-centres-advice/articleshow/53220978.cms>

gradual phasing out of the old units. It may be noted that the CEA, also has plans for phasing out such old units all over the country.

The primary pollutants due to coal-based power thermal plants include sulphur dioxide (SO₂) and nitrogen oxide (NO_x) in flue gas, mercury, coal dust particles, fly ash dust particles from ash silos and ash disposal areas and dust particulates in flue gas from chimney. A standard mechanism to remove the SO₂ is through the Flue Gas Desulphurisation (FGD) method, but the same was not mandatory for all TPPs in the country, until Dec, 2015. However, large newer plants are now required by MoEF to install FGD method to comply with norms as stipulated in the Notification of 7th Dec, 2015¹⁴. Notably, since FGD requires additional input cost, Project Proponents normally do not install the same, unless specifically mandated and monitored. Besides, it has been observed that cumulative SO₂ emissions and impacts in a given place must be considered, before individual plants are cleared.

Ash disposal from the TPPs, particularly plants that use indigenous coal with higher ash content (such as in Telangana), has also continued to bother communities. Routine ash disposal in local streams continues to create serious pollution and health problems for people and livestock in the plant vicinity, notwithstanding occasional checks by the PCB. Despite specific conditions in the clearances, instances have been recorded of ash being disposed off recklessly, leading to impacts on the underground and surface local water as well as deposit of ash dust on houses, farms, standing crop etc. Although MoEF's policy directives regarding ash disposal have become more stringent over the past two decades, now mandating that all plants must ensure 100% utilization of coal ash (ash disposal) within four years of plant commissioning, the same is yet to be translated by project proponents in the state into reality and monitored by authorities on the ground.

As regards social impacts, issues of resettlement and rehabilitation of the project-affected families continue to be a low priority for the proponents. This includes families who directly lose land and livelihood for the projects as well as families whose livelihoods, health and well-being is affected due to pollution. The lack of adequate jobs, as promised during construction of old Plants have been raised time and again by the local communities, especially during public hearings, with little success or response by the project authorities. Health impacts on the people and livestock has been a constant issue, as would be seen in the project-specific chapters.

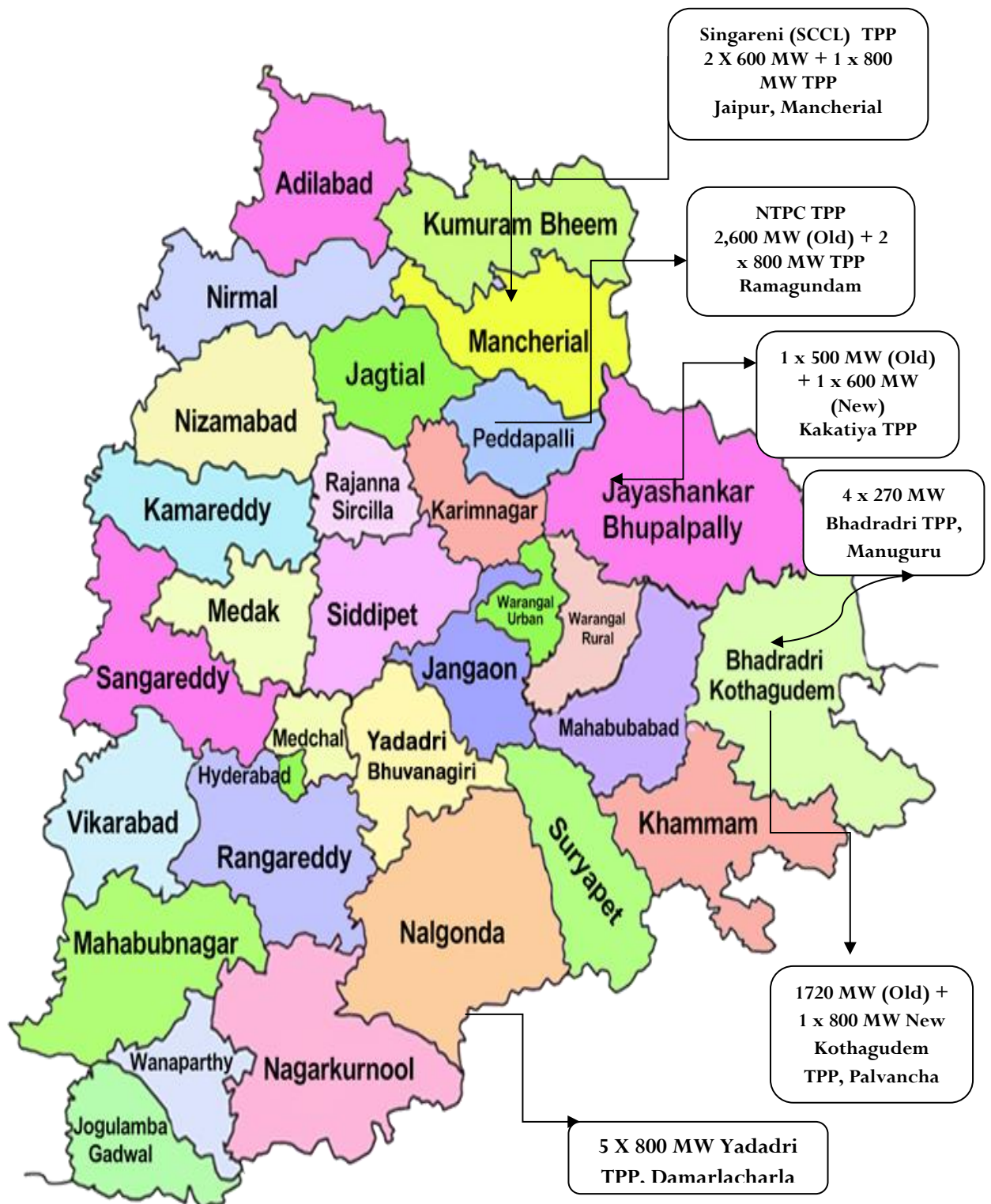
The complexity of counter-balancing the felt needs of the power sectors vis-à-vis social and environmental costs is rightly summarized as below in 'Many sparks, but little light: The rhetoric and practice of electricity sector reforms'¹⁵ and the Government of Telangana might do well to consider this in all earnestness, as it forges ahead with multiple new TPPs and capacity additions.

"It is important to note that any proposed capacity addition has linkages with not just the real demand for power, but also with resources such as land, water and fuels. Given our poor track record in dealing with the issues concerning environment as well as displacement and associated social issues, it is extremely important to set governance processes to evaluate not just the need and economic viability but also the social and environmental costs of setting up any new capacity. For this purpose, interventions are required to develop the criteria for minimizing cost not just for the power sector but also to minimize social and environmental impacts and to make optimal use of water, land and the natural resources"

¹⁴ <http://www.moef.gov.in/sites/default/files/Thermal%20plant%20gazette%20scan.pdf>

¹⁵ Prayas (Energy Group) (2017, January): 'Many Sparks, but Little Light: The Rhetoric and Practice Of Electricity Sector Reforms in India: Report Summary Available at: <http://www.prayasgroup.org/peg/publications/item/332-many-sparks-but-little-light-the-rhetoric-and-practice-of-electricity-sector-reforms-in-india.html>

Indicative Map depicting locations of Thermal Power Plants in Telangana State



PART II: LEGAL AND REGULATORY FRAMEWORK

While it is widely perceived that power generation and capacity additions have been prioritized over social-environmental impacts and related governance issues of Thermal Power Plants, in the past few decades, the latter also did become a growing cause of concern, both to the government and civil society. Infact, the last two decades has witnessed the slow evolution of a legal and regulatory regime that governs these plants.

The legislative journey of environmental protection laws in India began with the country's participation in the United Nations Conference on the Human Environment held at Stockholm in June, 1972, wherein it was decided that member-nations must take appropriate steps for the protection and improvement of human environment. Soon thereafter, two significant legislations i.e. the Wildlife Protection Act, 1972 and Water (Prevention and Control of Pollution) Act, 1974 were enacted, leading respectively to formation of the National Board for Wildlife and the Pollution Control Board at the Central and state level.

The pace of environmental protective legislations further picked up with the Constitution (42nd Amendment) Act, 1976, which led to addition of Article 48A to the Constitution. Art. 48-A states that "*The State shall endeavour to protect and improve the environment and to safeguard the forests and wildlife of the country.*" In the following years, the Forest Conservation Act, 1980; the Air Act, 1981; Environment Protection Act, 1986 were enacted.

The Environment Impact Assessment (EIA) Notification, 1994 was a significant step forward to spell out a detailed procedural mechanism for clearing development projects from an environmental angle. Based on the experience of the implementation of 1994 Notification, MoEF & CC brought forth the EIA Notification of 2006, prescribing elaborate procedures for scrutiny, appraisal, public hearing and grant / rejection of environmental clearance. The enactment of the National Green Tribunal Act in 2010 (an improvement over and consolidation of the previous Tribunals) was a major initiative providing an exclusive and expeditious quasi-judicial forum to take cognizance of and action with regard to environmental matters.

Recognizing the need for legislation to address social impacts on persons and communities in tribal, rural, forest and urban areas, adversely affected by developmental interventions, the Parliament also enacted a series of laws since mid-90s beginning with the Panchayats (Extension to Scheduled Areas) Act, 1996, The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013

It deserves mention here that most of these legislations were a product of growing environmental and social awareness on the ground, increased public interest litigation and judicial interventions, mass people's movements across the country raising concerns of environmental sustainability, development induced displacement, rehabilitation etc and a climate of evolving international law and conventions. This Chapter provides a brief gist of the key legislations that govern various aspects of the social and environmental life-cycle of a Thermal Power Plant.

3. Key Legislative, Statutory, Policy Provisions

Sl. No.	Legislation	Summary
1.	Wildlife Protection Act, 1972	The Wildlife Protection Act aims at the protection of wild animals, birds and plants with a view to ensuring the ecological and environmental security of the country. Any developmental project, including thermal plant which is located within or in the vicinity of a sanctuary or protected area or is likely to impact wildlife needs to be cleared by the Standing Committee of the National Board for Wild Life constituted as per this Act.
2.	Water (Prevention and Control of Pollution) Act, 1974	<p>The Water Act seeks to provide for the prevention and control of water pollution and the maintaining or restoring of wholesomeness of water. The Central and State Pollution Control Boards have been constituted as per the provisions of this Act, with powers and functions for the prevention and control of water pollution.</p> <p>Among other things, the Act envisages that the State Boards in particular shall collect consent fees from project proponents and issue conditional Consent to Establish (CTE) and Consent to Operate (CTO). The Act also authorizes the Board to undertake site visits, surprise checks, impose fines and even initiate legal action against individuals, companies and government departments for violation of the Act and consent conditions.</p>
3.	Air (Prevention and Control of Pollution) Act, 1981	The Air Act seeks to provide for the prevention, control and abatement of air pollution and arms the Pollution Control Board with powers and functions for the prevention and control of air pollution. Among other things, the Act envisages that the State Pollution Control Boards shall collect consent fees from project proponents and issue conditional Consent to Establish (CTE) and Consent to Operate (CTO). The Act also authorizes the Board to undertake site visits, surprise checks, impose fines and even initiate legal action against individuals, companies and government departments for violation of the Act and consent conditions.
4.	Forest Conservation Act, 1980	The Forest Conservation Act, 1980 aims to provide for the conservation of forests. It strictly restricts and regulates the de-reservation of forests or use of forest land for non-forest purposes without the prior approval of Central Government. To this end, the Act lays down the pre-requisites for the diversion of forest land for non-forest purposes. The Act, along with the FR Rules of 2003 puts in place a mechanism of recommending diversion of forest land for non-forest uses, through the Forest Advisory Committee.
5.	Panchayats (Extension to Scheduled Areas) Act, 1996	<p>The PESA Act is an important piece of legislation recognizing the right of decentralized democratic decision-making of the Gram Sabhas in the Schedule V (adivasi) Areas of the Constitution. In effect, the Act extends the provisions of Part IX of the Constitution relating to the Panchayats to the Schedule V Areas.</p> <p>Sec 4(i) of PESA Act mandates that the Gram Sabha or the Panchayats</p>

		at the appropriate level shall be consulted before making the acquisition of land in the Scheduled Areas for development projects and before re-settling or rehabilitating persons affected by such projects in the Scheduled Areas; the actual planning and implementation of the projects in the Scheduled Areas shall be coordinated at the State level.
6.	Environment Protection Act, 1986	<p>The Environment Protection Act, 1986 aims to provide for the protection and improvement of overall environment of the country and lay down a broad legal framework to address different dimensions of the environmental challenges, especially the prevention of hazards to human beings, other living creatures, plants and property. For the purposes of the Act, 'environment', includes water, air, land and the inter relationship which exists among and between water, air and land and human beings, other living creatures, plants, microorganisms and property .</p> <p>Key Highlights of the EPA, 1986 are:</p> <ul style="list-style-type: none"> • Laying down standards for emission or discharge of pollutant from various sources and for quality of environment. • Restricting area in which industries, operation and process may not be carried out without Government's clearance certificate. • Laying down rules for prevention of accidents and remedial measures in case of accidents. • Procedures and safeguards for handling various hazardous substances in the factories and industries. • Directives to person or authority for closure, prohibition or regulation in the supply of water, electricity and other services in the case of violation of law and imposition of fine and initiation of penal action against polluters including companies and government departments. • Examination of such manufacturing processes, materials and substances as are likely to cause environmental pollution. • Carrying out and sponsoring investigations and research relating the problems of environmental pollution. • Collection and dissemination of information on environmental pollution. • Preparation of manuals, codes or guides relating to the prevention, control and abatement of environmental pollution. • Planning and execution of a nationwide programme for the prevention, control and abatement of environmental pollution.
7.	Electricity Act, 2003	The Electricity Act is a comprehensive legislation that seeks to consolidate the laws relating to generation, transmission, distribution, trading and use of electricity and generally for taking measures conducive to development of electricity industry, promoting competition therein, protecting interest of consumers and supply of electricity to all areas, rationalization of electricity tariff, ensuring transparent policies regarding subsidies, promotion of efficient and

		environmentally benign policies, constitution of Central Electricity Authority, Regulatory Commissions and establishment of Appellate Tribunal.
8.	Environment Impact Assessment Notification, 2006	<p>MoEF issued a Notification in 1994 to spell out a mechanism and procedure for assessment and mitigation of environmental impacts due to various development interventions. 12 years later, a fresh Notification (in short EIA Notification) was issued on 14th Sep, 2006, attempting to address the limitations of the previous Notification and make it more updated with the developmental needs and interventions.</p> <p>The EIA Notification envisages an elaborate environmental impact assessment (EIA) procedure for an objective and likely identification, examination and appraisal of the positive and / or negative impact/s of any proposed project on the environment, together consisting of the natural, social and economic aspects and also remedial action plans to minimize adverse impact on the environment.</p> <p>The Notification has made prior environmental clearance mandatory for the development activities listed in its schedule. The clearance is granted based on recommendation by the Expert Appraisal Committee (EAC) for Category A Projects and by the State Level Expert Appraisal Committee (SEAC) for Category B Projects, constituted as per the provisions of this Notification. Since most thermal projects are covered under Category A, clearance from MoEF can be obtained only after recommendations by the EAC, based on scoping (grant of Terms of Reference), public consultation (public hearing conducted by PCB) and appraisal (detailed scrutiny of EIA report and other materials).</p> <p>The Notification also consists of detailed stipulations regarding manner of appointment of Chair and members of thematic EACs and SEACs, SEIAA, procedure for conduct of public hearing, appraisal, seeking clearance, preparation of EIA etc.</p>
9.	The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006	Commonly known as the Forest Rights Act, 2006, this is an important piece of legislation that attempts to correct historical injustice to adivasis and forest dwelling communities by recognizing and vesting the forest rights and occupation in forest land in the forest dwelling Scheduled Tribes and other traditional forest dwellers who have been residing in such forests for generations but whose rights could not be recorded. The Act seeks to provide a framework for recording and recognition of individual and community forest rights so vested and the nature of evidence required for such recognition and vesting in respect of forest land. The Act also provides for <i>in situ</i> rehabilitation of communities displaced, with the same forest areas.
10.	National Green Tribunal Act, 2010	The enactment of the NGT Act, 2010 led to the establishment of a National Green Tribunal for the effective and expeditious disposal of cases relating to environmental protection and conservation of forests and other natural resources including enforcement of any legal right relating to environment and giving relief and compensation for

		<p>damages to persons and property and for related matters.</p> <p>The Act affirms the need for a separate Tribunal in the light of judicial pronouncements in India that have repeatedly upheld the right to a healthy environment as integral to the right to life under Article 21 of the Constitution. NGT is a specialized body equipped with the necessary expertise to handle environmental disputes involving multi-disciplinary issues.</p> <p>Amongst other things, the NGT also has power to grant relief and /or compensation, direct restitution of environment, stop polluting works, undertake visits and field assessments, punish for violation of its Orders. (Sec 25 & 26). The Tribunal is governed by the principles of natural justice, sustainable development, precautionary principle and polluter pays principle.</p>
II.	<p>The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013</p>	<p>Commonly known as the Land Acquisition and Rehabilitation Act or LARR Act, 2013, it is a crucial legislation which repealed the more than century old Land Acquisition Act of 1894 and provides a detailed procedure for acquisition of land for 'pubic purpose' projects, hearing of objections, social impact assessment, minimum acquisition of food-producing, irrigated farm lands, special safeguards for dalits and adivasis, consultation with and consent of Gram Sabhas (in Schedule V Areas), elaborate R&R entitlements, institutional mechanisms of grievance redressal etc.</p> <p>The Act envisages a humane, participative, informed and transparent process for land acquisition for industrialization, development of essential infrastructural facilities and urbanization with the least disturbance to the owners of the land and other affected families and provide just and fair compensation to the affected families whose land has been acquired or proposed to be acquired or are affected by such acquisition and make adequate provisions for such affected persons for their rehabilitation and resettlement and for ensuring that the cumulative outcome of compulsory acquisition should be that affected persons become partners in development leading to an improvement in their post acquisition social and economic status.</p>
I2.	<p>Andhra Pradesh Reorganization Act, 2014</p>	<p>The Andhra Pradesh Reorganization Act, 2014 was passed by the Parliament of India to mark the formation of the new state of Telangana on 2nd June, 2014 from the erstwhile United Andhra Pradesh and chart out the reorganization of the remaining state of Andhra Pradesh. The Act has detailed provisions regarding sharing of rights, responsibilities, resources, infrastructure benefits between both the states, considering the need for development of the economically neglected regions within Telangana. It is as part of this scheme that the Act mandated that the NTPC shall establish thermal units with cumulative capacity of 4,000 MW in Telangana after ensuring necessary coal linkages.</p>

4. Overview of the Key Institutional and Regulatory Entities

Sl. No.	Institution	Source of Authority	Role
1. CENTRAL GOVERNMENT			
	Ministry of Environment, Forests and Climate Change (MoEF & CC)	Article 48A was added by the Constitution (42 nd Amendment) Act, 1976, which paved the way for transfer of environment, wildlife and forests from state list to concurrent list, leading to establishment of the Union <i>Department of Environment</i> in 1980, <i>Ministry of Environment and Forests</i> in 1985 and MoEF & CC in 2014.	<p>MoEF & CC is the nodal Ministry in the administrative structure of the Central Government for the planning, promotion, co-ordination and overseeing the implementation of India's environmental and forestry related laws, policies and programmes.</p> <p>The Ministry is responsible for compliance of the provisions of the Environment Protection Act, 1986; Water Act, 1974; Air Act, 1981; Environment Impact Assessment Notification, 2006, Forest Conservation Act, 1980, Wildlife Protection Act, 1972 and Public Liability Insurance Act, 1991, along with a host of other regulations and notifications.</p> <p>As the Apex body, the Ministry is empowered to grant or reject environment, forest and wildlife clearances to Projects, based on recommendations of the Expert Appraisal Committees, Forest Advisory Committee and National Board for Wildlife respectively. The Ministry also has a key role in monitoring compliance of the clearance conditions issued by it, directly or through its respective regional offices.</p>
	Regional Offices of MoEF (ROs)	Govt. of India set up five Regional Offices of the MoEF in 1986 ¹⁶ at Bangalore, Bhopal, Bhubaneswar, Lucknow & Shillong to monitor and evaluate ongoing forestry development projects and schemes and 2 additional offices in 1988 (Chandigarh) and 1999 (Ranchi), to also monitor aspects of pollution control and environmental	<p>The Resolution dt. 8th Jan, 2014 of the MoEF lays down the mandate of the Regional offices of MoEF & CC in much detail. Some of the key functions of the ROs include:</p> <ul style="list-style-type: none"> • To monitor the implementation of conditions and safeguards stipulated in the environmental and forest clearances. • To examine and analyze the Six Monthly Progress reports from the Project Proponents vis-à-vis conditions in the Environmental Clearance (EC) and take further necessary action; • To do surprise and random checks/verifications of EC conditions of various projects by site visits; • Uploading on the websites the Stage-I (In-

¹⁶ Resolution No. 37-3/85-FP dated 07/04/1986

		<p>management of projects.</p> <p>In compliance of the Order of Supreme Court dt. 06/07/2011¹⁷, the Expenditure Finance Committee decided in its meeting held on 04/03/2013 under the Chairmanship of Secretary (Environment and Forests) to establish four Regional Offices with their headquarters at Chennai, Dehradun, Nagpur and Ranchi to facilitate more frequent inspections and in-depth scrutiny and appraisal of the proposals.</p>	<p>principle), Stage-II (Final) approvals, the site inspection/ monitoring reports, Agenda and Minutes of the SAG meetings held, the Six Monthly Progress reports of compliance and site visit reports.</p> <ul style="list-style-type: none"> • To assist state governments in preparation of proposals of forest diversion plans and undertake site inspections where more than 100 acres of forest diversion is involved, • To follow up pollution control measures taken by industries, local bodies, Government (State/ Centre); • To maintain liaison and provide linkage with the concerned State Government, with Central Government Agencies, Regional Offices of CPCB, SPCB, and non-Government organizations involved in implementation of programmes relating to environment. • Attending to Court Cases pertaining to the Ministry of Environment and Forests; • Attend to RTI Applications, general complaints pertaining to environment and forest issues. <p>Resolution¹⁸ dt. 8th Jan, 2014 provides a reasonably detailed mandate of the Regional Offices of MoEF.</p>
	Expert Appraisal Committee (EAC)	<p>Clause 4(ii) of the Environment Impact Assessment Notification mandates that “all projects or activities included as Category ‘A’ in the Schedule, including expansion and modernization of existing projects or activities and change in product mix, shall require prior environmental clearance from MoEF on the recommendations of an Expert Appraisal Committee (EAC) to be constituted by the</p>	<p>Clause 5 of the EIA Notification authorizes the EAC to screen, scope and appraise projects or activities in Category ‘A’. This includes the scoping stage of deferring, grant or refusal to grant Terms of Reference for preparation of EIA, public consultation i.e. stage of obtaining public opinion through a hearing organized by the PCB and appraisal stage i.e. a transparent and detailed scrutiny of EIA, public hearing report by EAC leading to recommendation for grant or rejection of clearance, with reasons recorded in writing.</p> <p>The Notification also mandates that authorized members of the EAC may inspect any site(s) connected with the project or activity in respect of which the prior environmental clearance is sought, for the purposes of screening or scoping or appraisal, with prior notice of at least seven days to the applicant, who shall provide necessary facilities for the inspection;</p> <p>The EAC shall function on the principle of collective responsibility. The Chairperson shall endeavour to reach</p>

¹⁷ I.A. No. 1868 in Writ Petition No. 202 of 1995 in the matter of T.N. Godavarman Thirumulpad versus Union of India & Others.

¹⁸ MoEF & CC Resolution dt. 8th Jan, 2014: Available at: <http://www.moef.nic.in/sites/default/files/ROHQ-23012014-en.pdf>

		Central Government for the purposes of this notification”.	<p>a consensus in each case, and if consensus cannot be reached, the view of the majority shall prevail.</p> <p><u>Composition:</u></p> <p><u>Chair:</u> Chairperson shall be an outstanding and experienced environmental policy expert or expert in management or public administration with wide experience in the relevant development sector.</p> <p><u>Members:</u> Each Thematic EAC shall be a body exclusively of upto 15 experts, as stipulated in Appendix VI of the EIA Notification. Experts in Environmental Sciences, Env. Quality, Project Management, EIA Process, Risk Management, Life Sciences, Forestry, Wildlife, Environmental Economics, Engineering, Technology, Architecture, Law are nominated as Members.</p> <p>Mem-Secy: Representative of MoEF shall act as the Member Secretary of each EAC.</p> <p>Every sector-specific EAC is mandated to meet at least once a month.</p>
	Forest Advisory Committee (FAC)	FAC is constituted by the Central Govt. as per Sec 3 of the Forest Conservation Act, 1980 and the Forest Conservation Rules, 2003 for recommending grant of forest approvals.	<p>FAC shall consider proposals for forest approval received from the Central Govt. (through the state govt within 90 days of user agency application in fresh cases). Where more than 40 ha forest land is required, the application is to be sent to Secy, MoEF, Delhi and where less than 40 ha is required to the concerned RO, MoEF. The two key stages of approval include:</p> <p>Stage I: Conditional In-Principle approval (followed by a compliance report of conditions) and</p> <p>Stage-II: Recommendation of grant of forest clearance.</p> <p><u>Composition:</u></p> <p><u>Chair:</u> Director General of Forests, MoEF</p> <p><u>Members:</u> Addl. DG, Forests, MoEF, Addl. Comm (Soil Conservation), Ministry of Agriculture, 3 eminent experts in forestry and allied disciplines (non-officials).</p> <p><u>Mem-Secy:</u> Inspector General of Forests, MoEF</p> <p>FAC is mandated to meet at least once a month.</p>
		National Board for	In cases where a project is proposed within the eco-sensitive zone around a Wildlife Sanctuary or within a distance of 10 kms from its boundaries, a duly-filed in

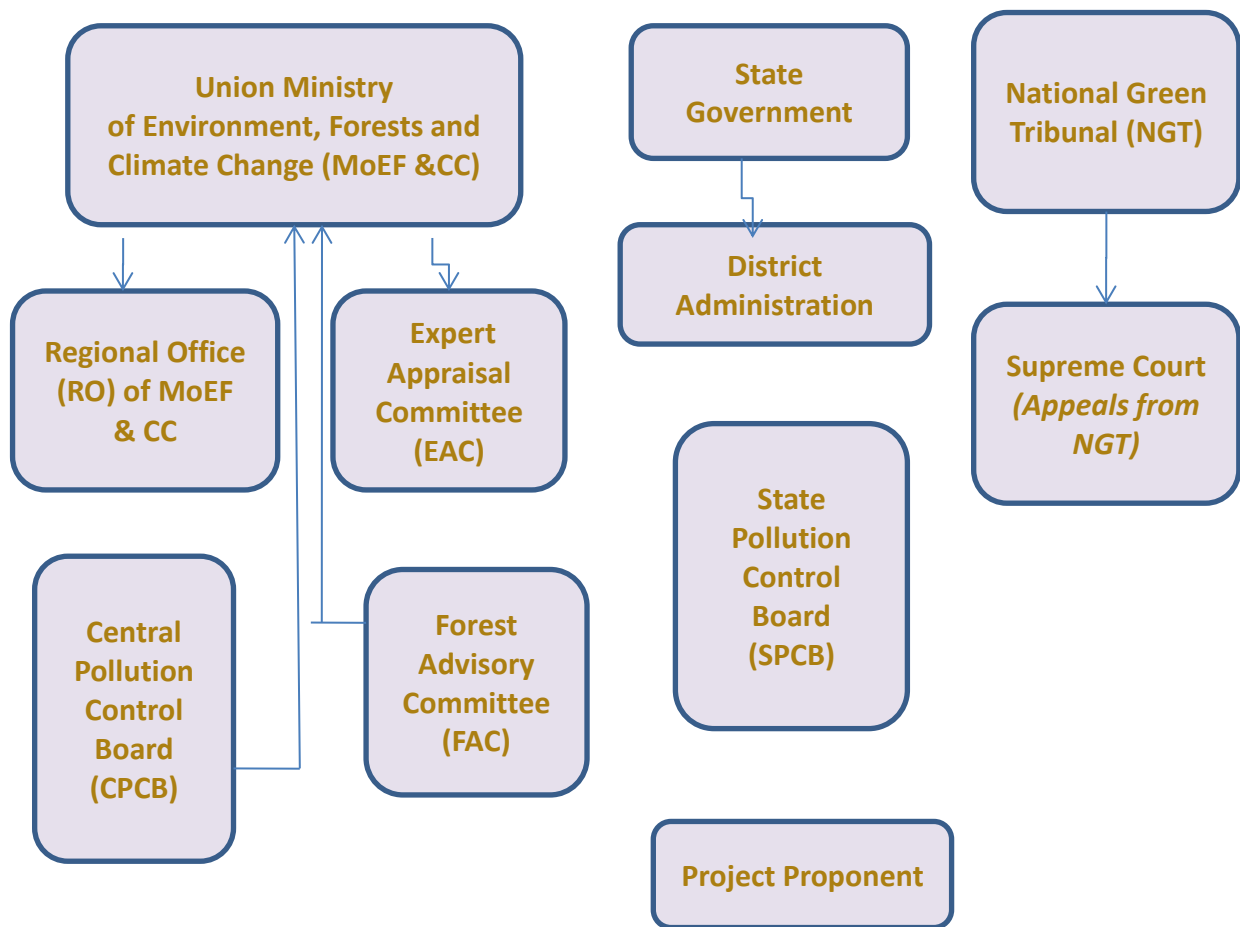
	<p align="center">National and State Board for Wild Life (NBWL) & (SBWL)</p>	<p>Wild Life (NBWL), the Standing Committee of the NBWL and the State Board for Wild Life (SBWL) are constituted as per Sec 5A, 5B & 6 of the Wildlife (Protection) Act, 1972 respectively.</p>	<p>proposal is submitted to the State Chief Wildlife Warden (SCWLW) through the Chief Conservator of Forests. The SCWLW reviews it and gives specific comments on the proposal and forwards 15 copies of the same to the Government of India, through the Forest Secretary after obtaining recommendation of the State Board for Wildlife on the proposal.</p> <p>This is placed before the Standing Committee of NBWL, chaired by Minister of State (I/C), MoEF. Site inspections may be conducted by members of the Committee if the area proposed for diversion is large and/or the impact of the project on wildlife is considered to be serious. Further studies/ surveys may be conducted by experts if instructed by Standing Committee of NBWL.</p> <p>Post receiving recommendation from Standing Committee of NBWL, User Agency /State Government is required to approach Hon'ble Supreme Court for final clearance, in case of any project located within the eco-sensitive zone around a Wildlife Sanctuary or within a distance of 10 kms from its boundaries.</p>
	<p align="center">Central Pollution Control Board (CPCB)</p>	<p>CPCB, a statutory organization, was constituted in Sep, 1974 under Sec 3 of the Water Act, 1974 and was also subsequently entrusted with powers and functions under the Air Act, 1981.</p>	<p>CPCB is the apex pollution control authority in the country and acts as a technical clearing house to MoEF to ensure compliance with the EPA, 1986, Water Act, 1974 and Air Act, 1981. The principal function of the CPCB, as spelt out in the Water Act and Air Act is:</p> <ul style="list-style-type: none"> i) to promote cleanliness of streams and wells in different areas of the States by prevention, control and abatement of water pollution. ii) to improve the quality of air and to prevent, control or abate air pollution in the country. <p>Composition:</p> <p><u>Chair:</u> A full-time Chairperson, with expertise in environmental management matters.</p> <p><u>Members:</u> 5 officials nominated by Centre, 5 members from State Boards, 3 non-officials representing interests of agriculture, fishery or industry or trade, two nominees of Central Govt. companies.</p> <p><u>Mem-Secy:</u> A full time-member secretary possessing experience of scientific, engineering or management</p>

			aspects of pollution control.
2. STATE GOVERNMENT			
	State Government and District Administration	<p>Forest Conservation Act, 2006</p> <p>Land Acquisition and Rehabilitation Act, 2013</p> <p>EIA Notification, 2006</p>	<p>In case of public authorities or public limited companies (such as TSGENCO), the state government is generally the Project Proponent and has a role to ensure compliance with all laws related to environmental and social protection. In cases where forest land diversion is involved, the proposal has to be routed to the Centre through the state government and again after the Stage-II forest clearance, the state government must issue a notification declaring diversion of the said forest land, as per FCA, 1980.</p> <p>The District Administration plays a key and extensive role in the process of acquisition of land and resettlement and rehabilitation of the project-affected families as per the Land Acquisition and Rehabilitation Act, 2013 (previously 1894 Act). The District Collector, generally, chairs the Public Hearing conducted as per EIA, 2006.</p>
	State Pollution Control Board (SPCB)	<p>SPCB, a statutory organization, was constituted in Sep, 1974 under the Sec 4 of the Water Act, 1974 and was subsequently entrusted with powers and functions under the Air Act, 1981.</p> <p>It was further entrusted with certain additional responsibilities as per the EIA Notification, 2006</p>	<p>The State Pollution Control Board is a statutory authority entrusted to implement environmental laws and rules within the jurisdiction of the State. The SPCB is supposed to ensure proper implementation of the statutes, judicial and legislative pronouncements related to environmental protection within the State, including EPA, Air Act, Water Act etc. As per A.P. Re-organization Act, 2014, AP PCB was bifurcated and TSPCB was constituted under Sec.4 of Water Act, 1974 and Section 5 of Air Act, 1981 on 07-07-2014.</p> <p>As per EIA Notification, 2006 State PCB is the Authority which calls for, conducts the Public Hearing and submits the Public Hearing Report to the MoEF. The PCB is the Authority which collects consent fees and issues conditional Consent to Establish (CTE) and Consent to Operate (CTO) to project proponents. The Board is also authorized to undertake site visits, surprise checks, impose fines and even initiate legal action for violation of law, clearance and consent conditions.</p> <p>Composition:</p> <p><u>Chair:</u> A full-time or part-time Chairperson, with expertise in environmental management matters (to be decided by State Govt.)</p> <p><u>Members:</u> 5 officials nominated by State Govt, 5 members from local authorities, 3 non-officials representing interests of agriculture, fishery or industry or trade, two nominees of Central Govt. companies. A full time-</p>

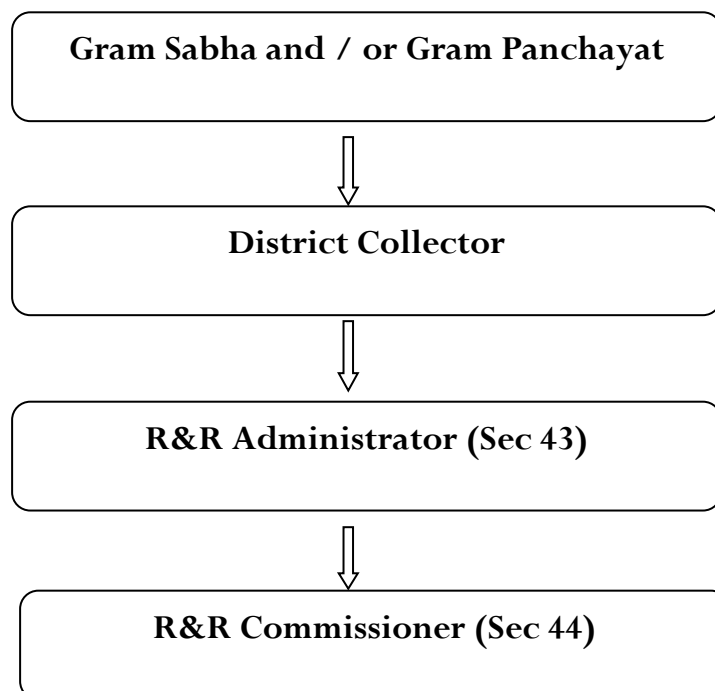
			member secretary possessing experience of scientific, engineering or management aspects of pollution control.
3. LOCAL GOVERNMENT			
	Gram Sabha and Gram Panchayat	<p>Panchayats (Extension to Scheduled Areas) Act, 1996</p> <p>Land Acquisition and Rehabilitation Act, 2013</p> <p>Forest Rights Act, 2006</p>	<p>Sec 4(i) of PESA Act, 1996 requires that Gram Sabhas in the Schedule-V areas must mandatorily be consulted prior to land acquisition and prior to R&R.</p> <p>Sec 16(5) of LARR Act requires Public Hearing in every Gram Sabha on the R&R Scheme and as per the PESA Act, 1996 in scheduled areas.</p> <p>Sec 4I of LARR Act mandates acquisition in scheduled areas only as a demonstrable last resort, after obtaining consent of Gram Sabha and ensuring R&R within the scheduled area as a compact block.</p> <p>Sec 44 (3) of LARR Act stipulates that the Commissioner shall be responsible for post-implementation R&R Social Audit in consultation with Gram Sabhas.</p> <p>FRA, 2006 accords a key space to the Gram sabhas to constitute Forest Rights Committees to ascertain and recommend to the SDLCs, the nature and extent of individual and community forest rights enjoyed and entitled to by the community.</p>
4. QUASI JUDICIAL AUTHORITIES			
	National Green Tribunal	National Green Tribunal Act, 2010	<p>The National Green Tribunal was established on 18/10/2010 under the National Green Tribunal Act 2010 for effective and expeditious disposal of cases relating to environmental protection and conservation of forests and other natural resources including enforcement of any legal right relating to environment and giving relief and compensation for damages to persons and property and for matters connected therewith or incidental thereto.</p> <p>NGT is a specialized body equipped with the necessary expertise to handle environmental disputes involving multi-disciplinary issues. Amongst other things, the NGT also has power to punish or violation of its Orders. (Sec 25 & 26)</p> <p>Presently The Tribunal has its Principle Seat at New Delhi, with Benches at Chennai (South Zone), Pune (West Zone), Bhopal (Central Zone), Guwahati (North-East Zone) and Kolkatta (East Zone), with</p>

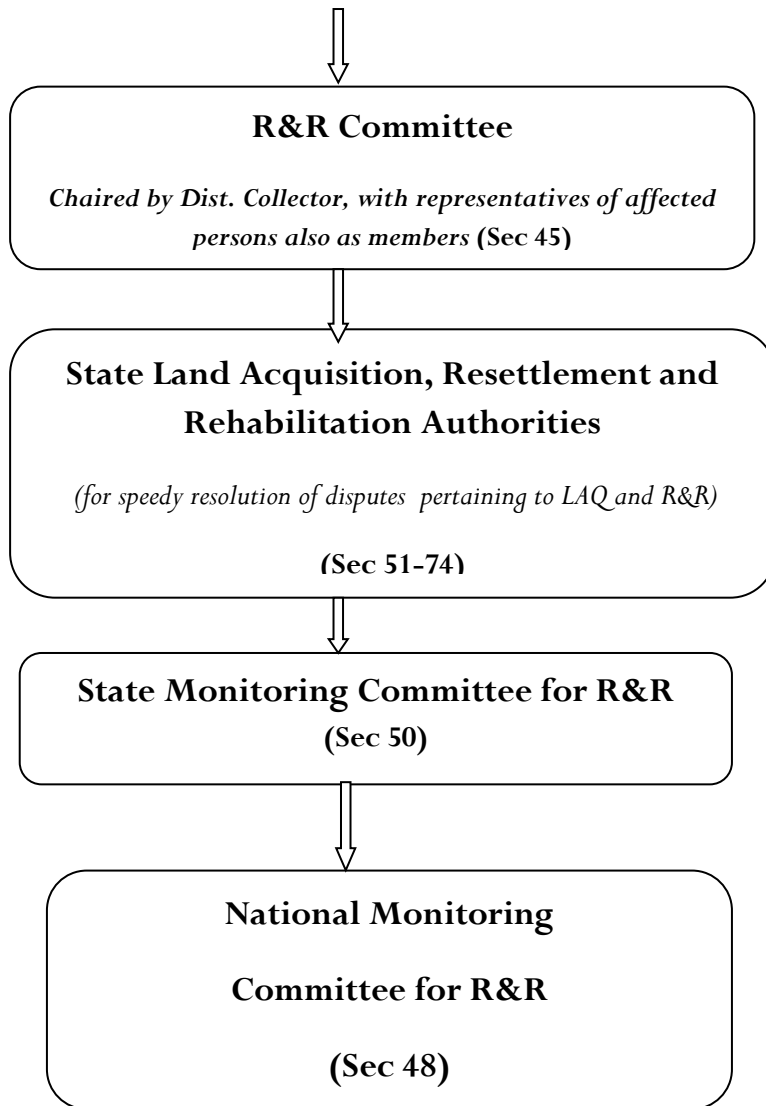
			Circuit Benches at Shimla, Shilling Jodhpur and Kochi.
5. JUDICIAL AUTHORITIES			
	High Court	Art 226 of the Constitution	Until the formation of the NGT in 2010, both environmental and land acquisition, R&R matters were dealt with by the High Court. However, after the formation of the NGT, large number of matters began to be dealt with / referred to the NGT. However, the High Court is the forum at the state level with regard to all matters of land, acquisition, R&R as well as constitutional and legal rights that come within the purview of Article 226 of the Constitution.
	Supreme Court	Articles 32, 139 of the Constitution and Sec 22 of NGT Act	<p>The Supreme Court is the Apex Judicial Body in the country possessing wide-ranging powers under the Constitution.</p> <p>Sec 22 of the NGT Act stipulates that an appeal against any Order of the NGT can be preferred before the Supreme Court, within 90 days of such order.</p> <p>Approval of the Supreme Court is also necessary in case any project is located within the eco-sensitive zone around a Wildlife Sanctuary or within a distance of 10 kms from its boundaries.</p> <p>The Supreme Court is the authority of last resort in all matters of land acquisition and rehabilitation, whose powers can be invoked by way of its writ jurisdiction.</p>

Flow Chart of Authorities/Entities



Chain of Authorities under as per LARR Act, 2013





5. Sequence of Steps in the socio-environmental clearance and oversight process of a TPP

Establishment of a Thermal Power Plant requires a range of procedures and clearances, depending on the location of the Plant, its scale and likely impacts.

This Chapter presents separate flow charts indicating the generic sequence of steps to be followed by any Project Proponent for seeking environmental, forest and wildlife clearances from MoEF¹⁹ and consent from PCB.

It also presents the key steps in the process of land acquisition and rehabilitation.

This Chapter is divided into three broad Sub Sections:

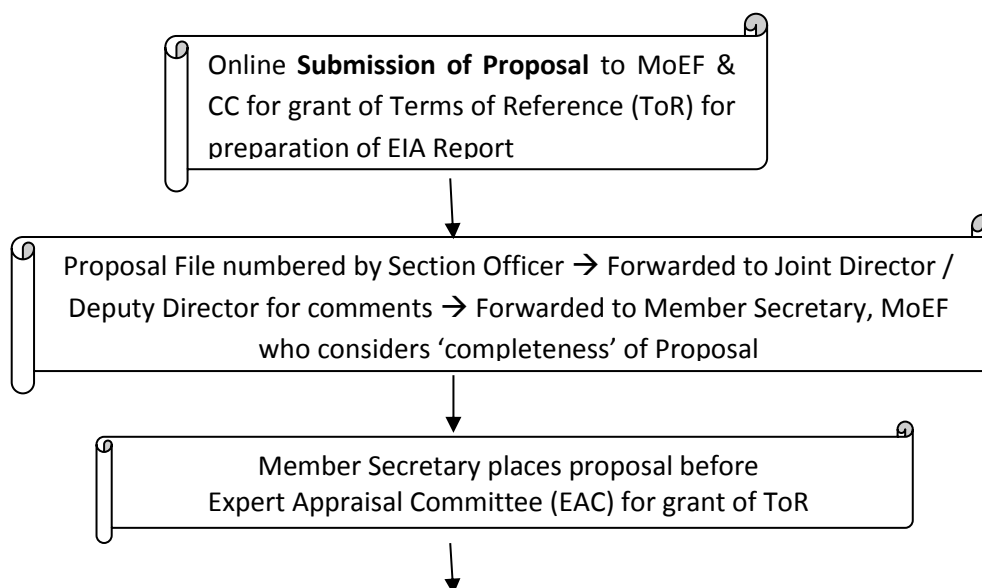
Sub Section A: Separate Flow Charts on the Sequence of Steps for obtaining environmental, forest and wild life clearance from MoEF.

Sub Section B: Flow Chart on the Procedure for Obtaining Consent to Establish (CTE) and Consent to Operate (CTO) from PCB.

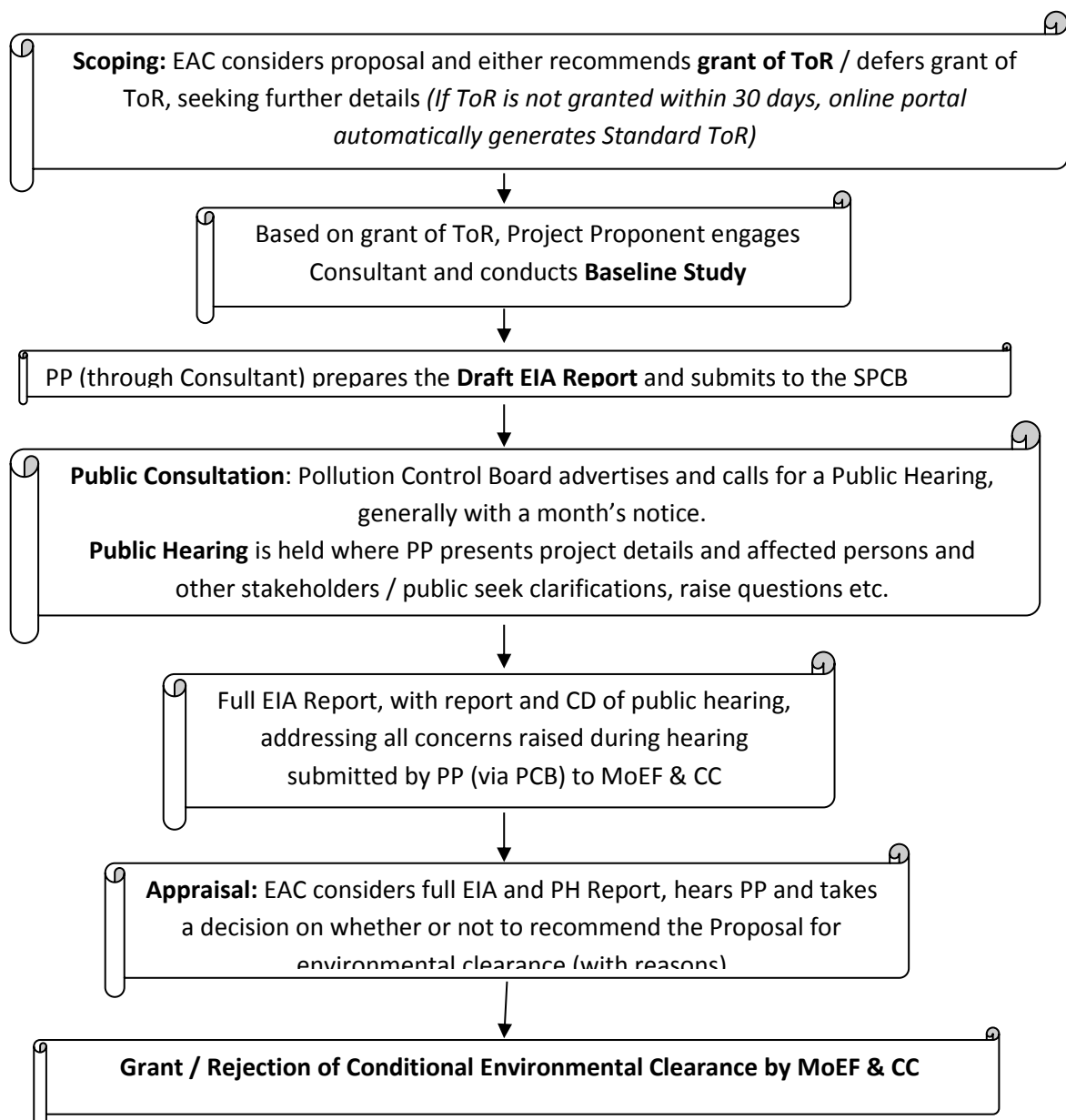
Sub Section C: Flow Chart on the Procedure for Land Acquisition and Rehabilitation

Sub Section A: Flow Charts on environmental, forest and wild life clearances

Sequential Steps for Grant of Environmental Clearance

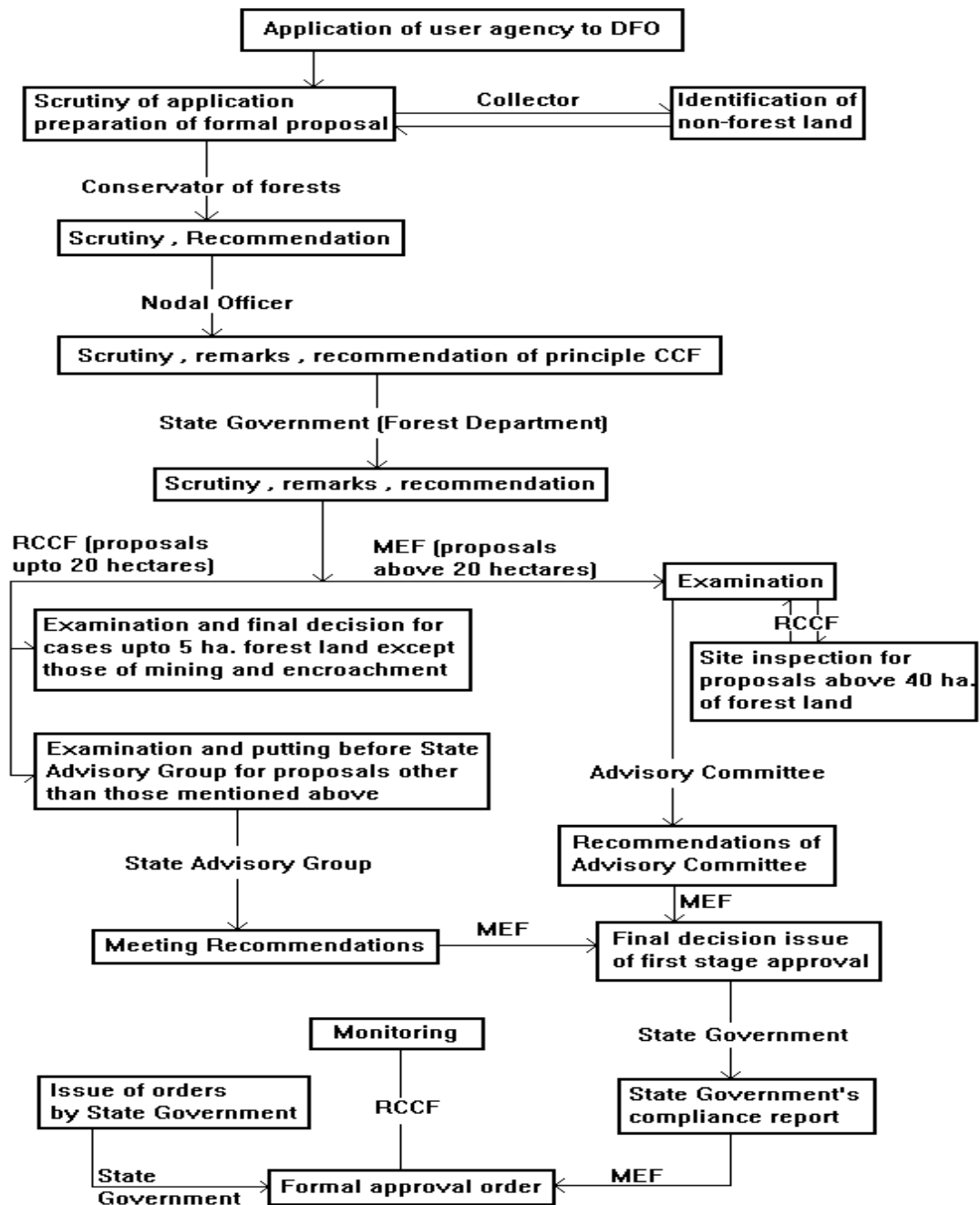


¹⁹ Since this is a study primarily in the context of Telangana which does not have a sea coast, the Coastal Regulation Zone (CRZ) permission process is not being covered, although the same is crucial in the case of thermal plants along sea coasts.

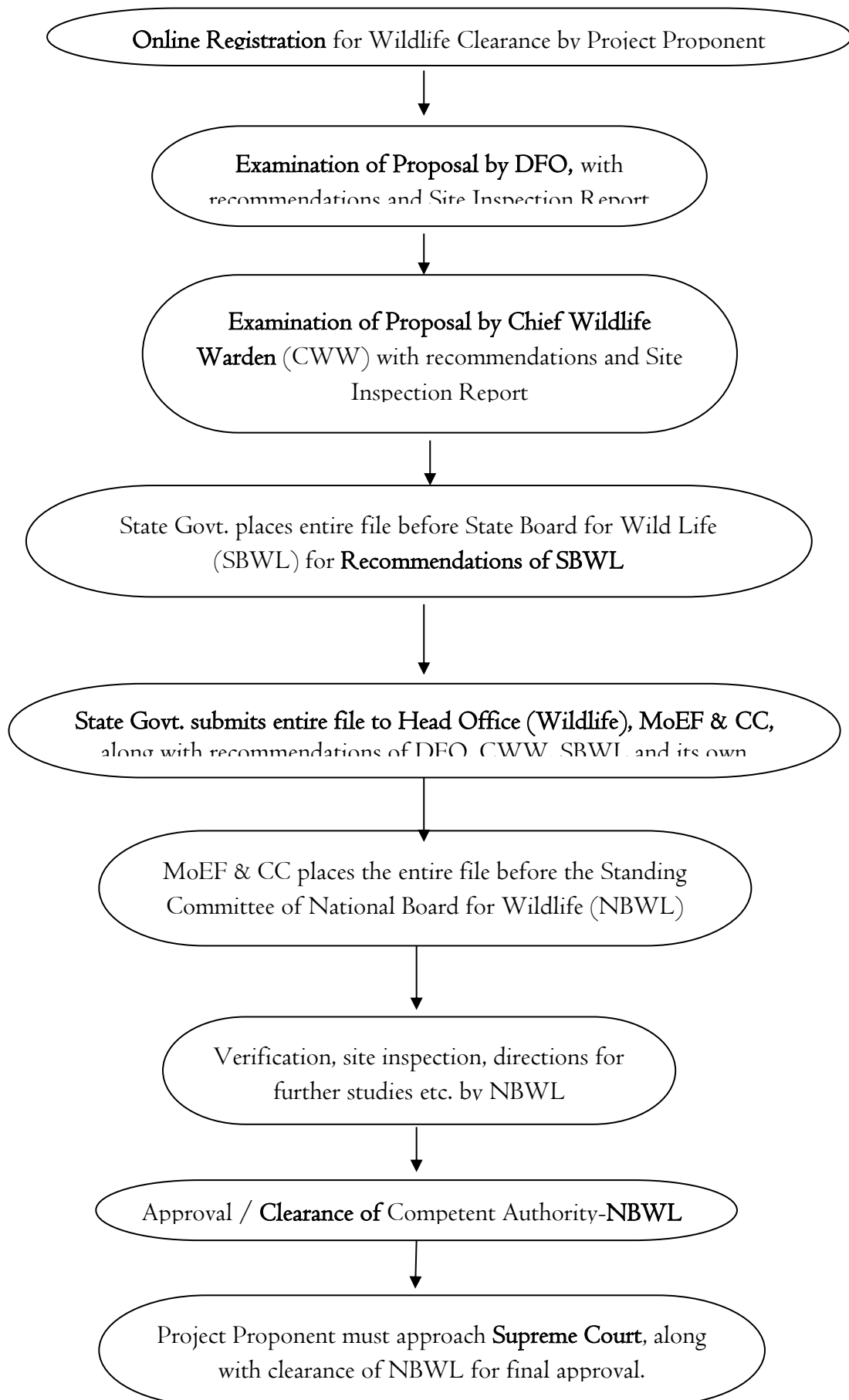


²⁰ Source: <http://www.moef.gov.in/citizen/specinfo/forflow.html>

PROCEDURE FOR OBTAINING FOREST CLEARANCE

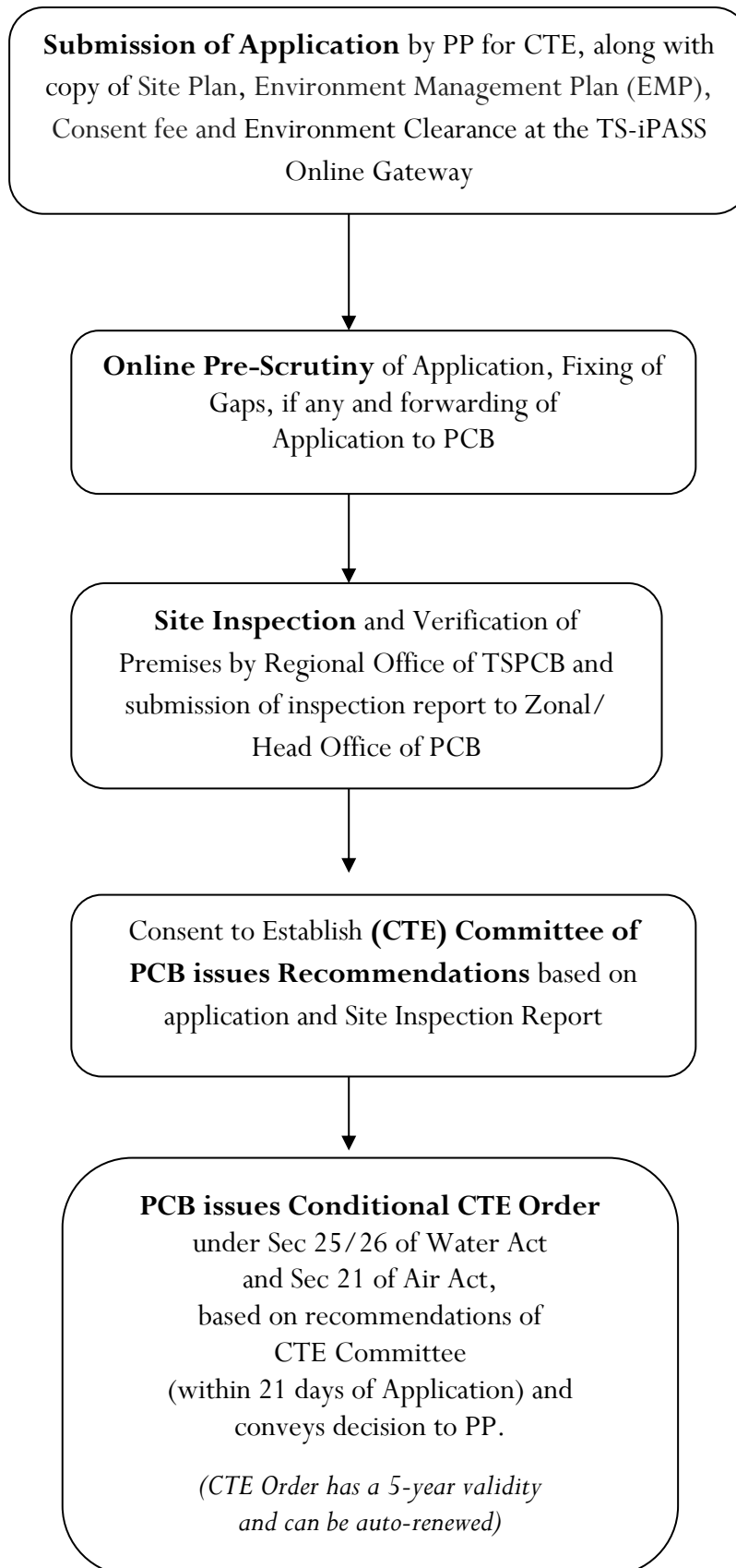


Sequential Steps for Grant of Wildlife Clearance

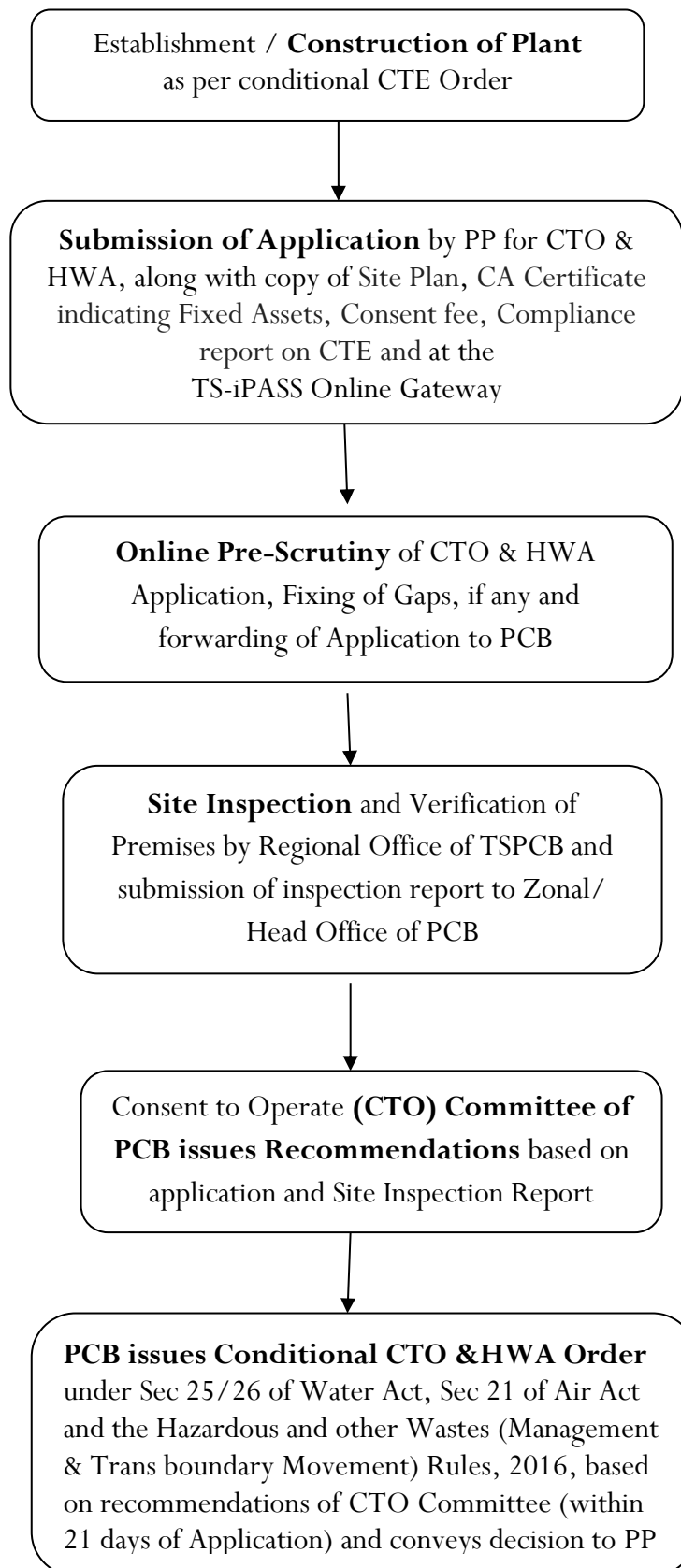


Sub Section B: Flow Chart on the Procedure for Obtaining Consent to Establish (CTE) and Consent to Operate (CTO) from PCB.

Sequential Steps for Grant of Consent to Establish (CTE) by PCB

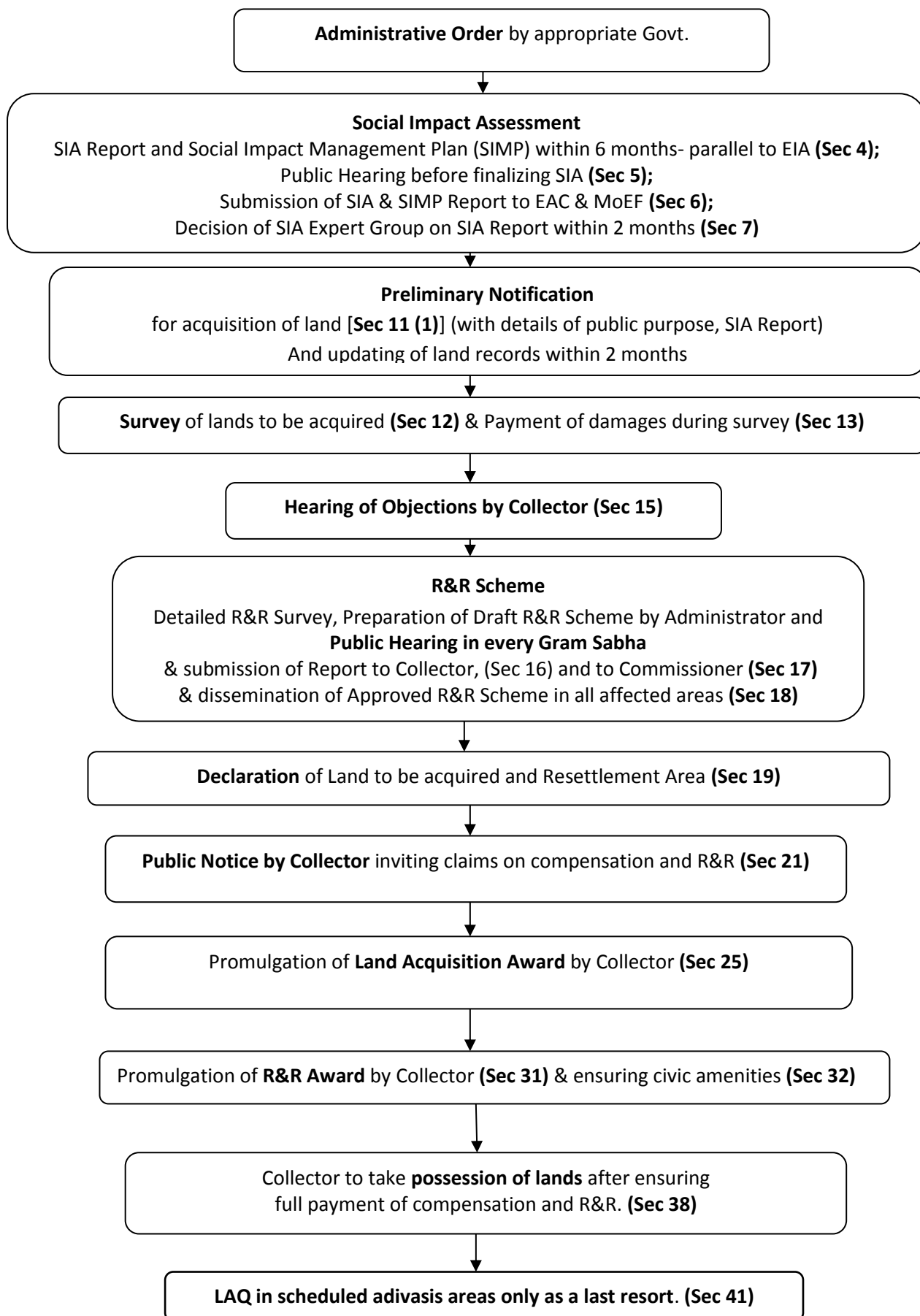


Sequential Steps for Grant of Consent to Operate (CTO) and Hazardous Waste Authorization (HWA) by PCB



Note: CTO is normally valid for a period of 5 years in the case of Red category (includes Thermal) plants.

Sub Section C: Flow Chart on the Key Steps in Land Acquisition and Rehabilitation Process as per LARR Act, 2013



Part III: SOCIO-ENVIRONMENTAL GOVERNANCE ASPECTS OF IDENTIFIED THERMAL POWER PLANTS IN TELANGANA

- **Bhadradi**
- **Yadadi**
- **Ramagundam**
- **Kothagudem**

6. Bhadradri Thermal Power Plant

Socio-Environmental Governance Issues and Gaps



Bhadradri Power Plant. Photo : Ayesha Minhaz

Materials dumped at Site in March 2017, by which time, PP claimed plant work would be complete.



Sign board of BHEL which has supplied the sub-critical technology materials to BTTP



Chapter 6: Bhadradri Thermal Power Plant

Socio-Environmental Governance Issues and Gaps

PART I: PROJECT HIGHLIGHTS

A. Brief Background:

This Chapter is based on appraisal of the issues around the 4 x 270 MW Bhadradri Thermal Power Project (BTTP), under construction at Villages Ramanujavaram (Manuguru Mandal), Eddulabayyaram and Seetharamapuram (Pinapaka Mandal), Dist. Kothagudem by the TSGENCO, Govt. of Telangana (Project Proponent). An attempt has been made here to broadly understand the environmental and social issues associated with this Project and in particular, the manner of regulatory governance by various monitoring authorities i.e. the MoEF & CC, EAC, PCB as well as the role of the NGT.

The study is based on a perusal of the Project Proposal, Final EIA Report of the Project submitted by the Project Proponent to the MoEF, correspondence between the PP and various authorities, submissions made by various stakeholders to the MoEF, Minutes of EAC meetings, clearance by MoEF, guidelines and notifications of MoEF, monitoring report of MoEF, media reports, submissions before the NGT, Order of the NGT etc. The study was further informed by detailed interaction with civil society activists and independent experts who have been working on issues concerning the Project since its inception

A field visit to certain villages affected by the Bhadradri TPP was also undertaken twice in March and September, 2017, to understand the concerns and issues from the ground. The villages visited include Eddulabayyaram, Seetharamapuram (Pinapaka Mandal), Dhammakapeta Panchayat and Chikkudugunta. Notably, the BTPS plant is situated in the scheduled adivasi area, as per the Constitution. The visit included extensive discussions with the villagers. A visit was also made to the regional office of the PCB, Kothagudem to meet the Environmental Engineer and get his version as well, but he was not present at office on that day and when contacted over phone for a meeting, said that RTI can be filed, if needed.

B. Project Summary:

The Bhadradri Thermal Power Project (BTPP) has been mired in controversy ever since it was proposed in the newly formed state of Telangana. On the one hand, citing urgent need for power²¹ (and, therefore, thermal power projects) the state government vigorously tried to push the BTPP and its construction, even without receipt of the environmental clearance from MoEF and consent to establish by PCB, by usage of outdated sub-critical technology. On the other hand, human rights, environmental groups and independent experts pointed out some serious concerns of violation of environmental laws, procedure and financial implications of the Project. The matter even went to the National Green Tribunal, which on the basis of reports from MoEF, upheld the illegality of the construction prior to EC and even directed penal action

²¹ Pg C2-1, Section 2.2: Need for the Project: Power Demand and Supply Analysis of EIA Report of BTTP available at <http://www.environmentclearance.nic.in/writereaddata/EIA/080420166NJSUQDAnnexure-documentofEIAEMP.pdf>

against concerned authorities. Notably, while the Project Proponent claimed that the project would be completed by March, 2017²²; it barely managed to receive EC, by that time !

The proposal regarding the Bhadradri Thermal Power Project submitted by the TSGENCO to the MoEF & CC on 3rd Feb, 2015 for grant of Terms of Reference (ToR) for preparation of EIA, was considered by the EAC of MoEF in its 32nd Meeting held on 23rd – 24th Feb, 2015 and was deferred, seeking more information and suggesting some changes to the Project. Thereafter, the matter was again considered by the EAC in its 36th Meeting held on 19th – 20th May, 2015 and recommendation for grant of ToR was issued with certain observations, including a recommendation to consider adoption of super-critical technology. Thereafter, MoEF granted ToR on 23rd June, 2015. TSGENCO entrusted the task of conducting EIA to Vimta Labs Ltd., a Hyd-based Consultant, which completed the EIA study by Sep, 2015.

Alleging that the Project Proponent (PP) began construction work, even when the EIA was not yet conducted and completed, public hearing not yet held, EAC's appraisal, MoEF's clearance and PCB's consent was not received, Human Rights Forum (HRF), a public spirited organization, challenged the legality of the construction before the NGT. On 12th Dec, 2015, HRF's Application was admitted and a *status quo* order was granted, restraining the PP from any further construction, until a valid EC is obtained.

Thereafter, on 9th Jan, 2016, the Regional Office of MoEF inspected the site and confirmed that the PP has been carrying on construction activities in violation of the *status quo* Order and without clearance from MoEF and consent from PCB. MoEF, in its Affidavit dt. 25th Feb, 2016 upheld this position of the RO and assured the Tribunal that its *status quo* Order would be implemented and no further construction would be permitted. The PP, however, contested the veracity of the Report of RO, MoEF. In the meanwhile, the Draft EIA and EMP report was submitted by the PP to the PCB on 3rd Feb, 2016. The Public Hearing was held on 17th March, 2016 and proceedings of the same were forwarded to MoEF & CC on 29th March, 2016.

In an interesting turn of events, an Environmental Engineer of the PCB conducted an inspection on 24th May, 2016 and a report on the same day was sent to the PCB, with an observation that no construction activity was being carried out by the PP. On 11th July, 2016, the NGT passed a detailed Order continuing the *status quo* on the construction activity. A direction was also issued to MoEF, to decide, through EAC, if an appraisal is possible, in the light of construction taken up already. If the EAC decides that appraisal is not possible, then the MoEF must take a decision accordingly within 8 weeks and if EAC decides appraisal is possible, it must go ahead and issue recommendations and MoEF must decide thereafter. NGT also directed the competent authorities to initiate penal action against officers of TSGENCO for violation of the EIA Notification, 2006; Air Act and Water Act within 4 weeks.

In the light of NGT's Order, the EAC held its 60th Meeting on 27th July, 2016, wherein it constituted a Sub-Committee to take a preliminary decision as to whether proper impact assessment is possible by virtue of the activities already carried out by the TSGENCO. The Sub-Committee visited the BTTP site on 17th-19th Aug, 2016 and thereafter submitted its Site Inspection Report to the EAC. The Report of the Sub-Committee was considered in the 63rd Meeting of EAC held on 29th-30th Aug, 2016. While a majority of the Sub-Committee concluded that the project could be appraised, as construction activity took place only on 1.85%

²² This is indeed crucial since project completion by March 2017 was the pre-condition to use sub-critical technology rather than super-critical.

of the Project area, one member held a view that construction was carried out on 9.7% of project area (91 acres out of the total project area of 936.90 acres). Thereafter, the EAC recommended grant of Environment Clearance in its 2nd Re-constituted Meeting held on 20th Jan, 2017. Upon consideration of the same, Conditional Environment Clearance (EC) was granted to BTPP by MoEF & CC on 15th March, 2017, for construction of a 1,080 MW plant (with 4 units of 270 MW capacity each). A Chart on the key chronological developments of BTPP is provided at the end of this Chapter.

C. Project Fact-File:

Sl. No.	Item	Details
I.	Name of the Project	Bhadradri Thermal Power Project (BTTP)
2.	Location (Village, Tehsil, Dist)	Villages Ramanujavaram, Eddulabayyaram and Seetharamapuram, Manuguru and Pinapaka Mandals, Dist. Khammam.
3.	Capacity (total and unit-wise)	Composite project of 4 units of 270 MWs each, cumulatively being a 1,080 MW TPP.
4.	Project Proponent	M/s Telangana State Power Generation Corporation Ltd. (TSGENCO)
5.	Project Executor	Bharat Heavy Electricals Limited (BHEL)
6.	Technology Type	Sub-Critical Coal based Thermal Power Plant Technology
7.	EIA Consultant	Vimta Labs Ltd, Hyderabad
8.	Project Schedule	24 months from Zero Date (21/3/2015). Thus date of planned/projected project completion was 21/3/2017.
9.	Coal Composition & Source	MoUs signed with SCCL on 4 th April, 2016 for supply of 100% domestic coal.
10.	Water Source	River Godavari. GoT has allotted 1.4 TMC/annum water from the river vide letter dt. 7 th Jan, 2015.
11.	Total Land Requirement	As per CEA norms, Land requirement is 1177.22 acres, but same has been minimized to 936.92 acres. 87% land is Govt. land while 13% is private land, as per PP.
12.	Status of Clearances	Conditional Environment Clearance (EC) granted by MoEF & CC on 15 th March, 2017
13.	Scale of Displacement	EC states that about 655 families would be affected.
14.	Project Cost	Rs.7,290.60 Crores (Estimated Project cost)

D. Description of Key Developments

- I. The Telangana State Power Generation Corporation Limited (TSGENCO) proposed to develop a 4 x 270 MW Bhadradri Thermal Power Station at Ramanujavaram, Eddulabayyaram and Seetharamapuram Villages, Manuguru and Pinaka Mandals, Khammam district, Telangana State and submitted a proposal on 3rd Feb, 2015 to the Ministry of Environment and Forests and Climate Change (MoEF & CC) for grant of Terms of Reference in order to undertake an Environmental Impact Assessment study.

2. The proposal came up before the Expert Appraisal Committee (EAC) in its 32nd meeting²³ dated 23rd and 24th of February, 2015. The EAC in the same meeting deferred the proposal for Terms of Reference seeking more information and suggesting certain changes to the proposed project, including *optimization of the land requirement as per CEA norms, revision of the Plant layout by shifting the locations of ash pond and township and examination of the feasibility of switching to super-critical technology and accordingly, revision of the configuration of proposed Units*”.
3. The proposal was further considered by the EAC in its 36th meeting²⁴ dated 19th and 20th May, 2015²⁵, wherein the EAC recommended grant of Terms of Reference with certain critical observations. This included the direction that the PP must “*explore the feasibility of installing Super Critical Technology. If subcritical is proposed, prior approval of MoP shall be submitted and accordingly, the EIA/EMP shall be prepared. Action plan for development of green belt in 33% of the area and thick green belt between the Road and the River. Green belt plantation should be started as soon as possible, before starting any construction activity.*”
4. After the EAC recommended the proposal for the Terms of Reference (TOR), the Ministry of Environment and Forests and Climate Change (MoEF & CC) granted the ToR²⁶ on 23rd June, 2015; subsequent to which TSGENCO entrusted the task of conducting EIA to Vimta Labs Ltd., a Hyd-based Consultant, which completed the EIA study by Sep, 2015.
5. Members of Human Rights Forum (HRF), a public interest organization visited the project site on 6th and 30th Oct, 2015 and claimed that work on BTPP has begun, without a) the prior approval from the MoP for the usage of sub-critical technology, b) without prior public hearing, c) without EAC’s appraisal & approval, d) without Environmental Clearance from MoEF & CC under EIA Notification, 2006 and e) without Consent to Establish from TSPCB under Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution), 1981. Claiming that substantial project work including demarcation of project site, transportation of huge amounts of material required for various construction activities, large amount of earth digging and soil excavation and dumping work, was already undertaken, without necessary clearances, the Forum challenged the legality of the construction before the NGT by way of Application No. 206/ 2015 (SZ). On 12th Dec, 2015, HRF’s Application was admitted and a *status quo* order was granted by the NGT, restraining the PP from any further construction, until a valid EC is obtained.
6. Thereafter, on 9th Jan, 2016, Dr. M.T. Karuppiah, Scientist ‘C’, Regional Office, MoEF & CC, inspected the project site and noted that the construction works were being undertaken by the Project Proponent without clearance from MoEF and consent from PCB. This Report is also referred to in the Order dt. 2nd May, 2016 of the NGT. A few key extracts from the RO’s Report²⁷ are below:

²³ EAC 32nd Meet Minutes http://environmentclearance.nic.in/writereaddata/Form-1A/Minutes/0_0_31123123012101MoM32ndEACT23-24Feb2015.pdf (Pgs 10-11)

²⁴ EAC 36th Meet Minutes http://environmentclearance.nic.in/writereaddata/Form-1A/Minutes/0_0_6111912471291MoM36thEACT19-20May2015.pdf (Pgs 11-12)

²⁵ It may be noted that though baseline data was collected before grant of ToR, the same is not recorded in the 36th EAC Meeting Minutes.

²⁶ <http://environmentclearance.nic.in/writereaddata/Form-1A/TOR/60506242015102-2015.PDF>

²⁷ F. No. EP/12.1/2015-16/14/TE/0140 dated 11th Jan, 2016

*"Presently, the following civil work has been initiated and **in progress** in the area demarcated for main power house:*

- (a) Laying of internal Roads*
- (b) Civil construction works for sub-station*
- (c) Construction of the Site Office*
- (d) Foundation work/erection of boiler House & ESPs, chimneys*
- (e) Excavation of earth materials and levelling operation for the construction of ancillary buildings*
- (f) Switch Yards and*
- (g) Construction of batching plant for mixing of concretes has been made in the area demarcated for greenbelt."*

Observation and concluding Remarks:

- a. Project authority has commenced and continuing construction activities / Civil works of their proposed Thermal Power Plant without obtaining prior environment clearance from the MoEF&CC and 'Consent For Establishment' from the State PCB.*
- b. As per the Ministry's O.M. dated 27.06.2013, it is observed that the aforesaid case falls under violation due to the commencement of construction without valid EC. In view of the above, Ministry may take appropriate action as deemed fit.*
- c. During the visit, existence of a water body within the project site i.e beside the switchyard area of the project and parallel to the existing Manuguru – Eturnagaram Road was observed. The Project authority has not made available any documents like satellite imagery / land use pattern of the site. Ministry may take-up the matter with project authority seeking relevant documents for taking a view in this regard.*

[Extracts from the Site Inspection Report of MoEF dt. 11th Jan, 2016]

7. The Project Proponent filed a counter²⁸ to the Site Inspection Report before the NGT, contesting its observations and findings. On 25th Feb, 2016, MoEF & CC, filed a scathing rejoinder²⁹ to this Counter of the PP. The Ministry assured the Tribunal that it would ensure compliance of the *status quo* order and not permit any further construction. Relevant extract from MoEF's Affidavit is as below:

"5. That the Respondent No. 3 vide their reply dated 11/05/2016 served objections to the site inspection report dated 11/01/2016 of MoEF & CC, wherein the Respondent No. 3 has submitted misleading information before the Hon'ble Tribunal and twisted the facts according to their own convenience.

6. It is submitted that the contents of Para No. 1 and 2 is matter of record. However, it is denied the statement of Respondent No. 3 at Para 2(i) that the photographs taken were of the works carried out from September 2015 to 13th December, 2015. It is pertinent to mention that the photographs placed in the

²⁸ Affidavit of Objections Filed by the 3rd Respondent (TSGENCO) to the Letter dt. 11/1/2016 of Scientist, Regional office, MoEF Chennai (Filed on 10th May, 2016)

²⁹ Affidavit by Respondent No. 1 (MoEF & CC) [Filed on 25th Feb, 2016]

report were taken on the date of site visit dated 09/01/2016, which clearly indicates that the project activities are in progress

8. It is submitted that the averments made in the Reply at Para No. 3 (iii) and 3 (iv) of the Respondent No. 3 regarding suspension of Civil work/Construction activities are completely wrong and denied. It is submitted that the statement made in the site visit report is absolutely correct. Further it is submitted that during the site visit part of the civil work was under progress. In support of this photographs taken during the visit is placed in the site visit report as Annexure-II and Annexure-III. Further, few additional photographs regarding levelling activities carried out during the visit, the unloading of construction materials and materials unloaded at the storage yard are also being enclosed herewith as **Annexure RI/3**. The said photographs apparently shows that the continuation of project activity. Further, it is submitted that it is immaterial as to the number of people deployed in the work during the visit. Even if few people are engaged that would tantamount the progress of work.”

8. In the meanwhile, on 26th Feb, 2016, the Ministry of Power³⁰ conceded to the PP’s request for undertaking the project construction with sub-critical technology, with a rider that project construction be completed by 31st March, 2017. Based on the Draft EIA and EMP Report submitted by the PP on 3rd Feb, 2016, the Regional Office, Telangana State Pollution Control Board (TSPCB), Kothagudem issued a notification in Telugu daily “Namaste Telangana” and English Daily “The Hindu” regarding the proposed public hearing on 17th March, 2016. The Public Hearing was held on 17th March, 2016, as scheduled, in the premises of proposed Bhadradi Thermal Power Project, Seetharampuram village, Uppaka Gram Panchayat, Pinapaka Mandal, in erstwhile Khammam District (Now Bhadradi Kothagudem Dist.). Proceedings of Public Hearing³¹ were forwarded to MoEF & CC on 29th March, 2016.
9. On 21st May, 2016, the Pollution Control Board telephonically ordered an inspection of the BTPS site and accordingly, a site inspection was carried out by a Environmental Engineer of the PCB on 24th May, 2016, in the presence of the project proponent and a report on the same day was sent to the PCB, with an observation that no construction activity was being carried out by the PP at the BTPS site. It was further stated in the Report that:

“There is no mobilization of workers within the premises; concrete transit mixers and cranes are existing in the site but they are not in use; generators, IP & HP turbines of the power plant are observed within the premises and there was no construction/work activity for laying of internal roads, foundation works of turbines, boiler house ESPs and chimneys, excavation work for cooling towers, switch yard, batching plants are not in operation, as observed during inspection and there is no activity in the material stock yard’.”³²

³⁰ MoP issued an Office Order No. 8/3/2002-Th-II(Vol-\) dt. 13th Nov, 2009 stating that “13th Plan Capacity Addition will be through super critical units only”.

³¹ <http://environmentclearance.nic.in/writereaddata/Public%20Hearing/08042016ASK75XH9Annexure-documentofPublicHearing.pdf>

³² Para 16 (Page 7) of the NGT Order dt. 21st July, 2016.

10. After hearing the Appellants, TSGENCO, PCB and MoEF & CC, the National Green Tribunal passed a detailed Order on 11th July, 2016³³, continuing the *status quo* on the construction activity and directed EAC. A direction was also issued to MoEF, to decide, through EAC, if an appraisal is possible, in the light of construction taken up already. If the EAC decides that appraisal is not possible, then the MoEF must take a decision accordingly within 8 weeks and if EAC decides appraisal is possible, it must go ahead and issue recommendations and MoEF must decide thereafter. NGT also directed the competent authorities to initiate penal action against officers of TSGENCO for violation of the EIA Notification, 2006; Air Act and Water Act within 4 weeks. The operative directions are extracted below.

39. Accordingly the application stands partly allowed with the following directions:

- (1) It is not possible to direct the third respondent – project proponent to demolish the structures already put up. However, the first respondent shall through EAC proceed with the appraisal in which event EAC shall take a preliminary decision as to whether proper impact assessment is possible by virtue of the activities already carried out by the third respondent.*
- (2) In the event EAC deciding against the project proponent, the same shall be communicated to the regulatory authority viz., the first respondent which shall pass appropriate orders. Both are to be decided expeditiously by the first respondent in any event, within a period of eight weeks from today.*
- (3) In the event of EAC deciding that the appraisal can be carried on, inspite of the activities carried out by the third respondent, the EAC shall proceed further and complete the process and issue appropriate recommendations to the regulatory authority which shall pass appropriate orders accordingly.*
- (4) Till such orders are passed by the regulatory authority, the third respondent shall maintain status quo in respect of the construction, making it clear that no activity shall be proceeded with till the orders are passed by the regulatory authority.*
- (5) The plea of invoking “polluter pays” principle is negated³⁴*
- (6) The authorities competent, including the second respondent shall initiate appropriate penal action against the officials of the third respondent for the violation of EIA Notification, 2006 and Water Act and Air Act and such action shall be initiated within four weeks from today and the prosecution shall be expeditiously completed.*

[Extracts from the Order of NGT dt. 11th July, 2016]

³³ NGT Order dt. 21st July, 2016 in Human Rights Forum versus Union of India and Ors in Application No. 206 of 2016 (SZ)

³⁴ This was controversial and much criticized part of the order, since the Tribunal sought to exempt a State entity from the polluter pays principle, on the ground that the costs have to be borne from the public exchequer.

II. The aforesaid Order of the NGT was considered by the EAC in its 60th Meeting³⁵ dt. 27th July, 2016 for compliance of the specific directions contained in Paras 36, 37 and 39 of the Order. Since the EAC was directed to “take a preliminary decision as to whether proper impact assessment is possible by virtue of the activities already carried out by the third respondent (PP)”, by way of a “spot inspection” (Para 36), the EAC constituted a Sub-Committee for the said purpose, under the chairmanship of Prof CR Babu, and with Shri NK Verma, Shri GS Dang, Shri Shantanu Dixit, a representative of CEA and concerned representatives of MoEF & CC, as members. The Sub-Committee decided to carry out the site inspection between 17th to 19th Aug, 2016.

12. a) The Sub-Committee carried out the site inspection to the BTTP area between 17th to 19th Aug, 2016 and placed its Report before the EAC in its 63rd Meeting³⁶ held on 29th-30th Aug, 2016. The key observations of the majority members of the Sub-Committee was as follows:

“In light of above observations, the Sub-Committee is of the view that the ground preparation activities for levelling and grading, excavation of soil for foundation, concreting of foundation and Steel reinforcement therein for some power plant units over an area of just 1.85% of the total area, temporary stacking of soil, Kachcha roads of short distance for movement of vehicles, the temporary storage of materials and machines, and temporary sheds for storage of sensitive instruments and a small substation, a batching plant, office sites, etc. will not form impediment for appraisal of EIA of the project. As reported by PP, the EIA was conducted before the works started at the site and the area disturbed is a minute fraction of the project area which further substantiates that appraisal of the environmental impacts of project can be done. Moreover, the ground preparation and foundations for Power Plant Units have been done as per the layout considered while according ToR. There are no ecologically sensitive areas such as forests, wetlands etc. within the project site and National Parks, Wildlife Sanctuaries/Corridors, archaeological monuments etc. within the study area”. (Report is at Pages 26-55 of 63rd EAC Meeting Minutes)

b) However, Shri Shantanu Dixit, member of the Sub-Committee and EAC (T), submitted certain additional observations³⁷, wherein he has stated that construction / project activity was carried out on 91 acres out of the total project area of 936.90 acres. Thus, 9.7% of project area was affected due to construction activity. In his separate note annexed to the Report, he concluded as follows:

“The construction activity at main power block and auxiliaries has taken place on the basis of plant layout for 4 x 270 MW sub-critical units with significant excavation and foundation work being carried out for ESP, Boiler and Chimney etc. Admittedly, this Sub Critical plant configuration was committed to even before issue of ToR dt. 23rd June, 2015 and major construction activity was carried out many months before the MoP letter dt. 25th February, 2016 and even before Public Hearing on 17th March, 2016. This makes it akin to fait accompli and onerous for EAC to conduct proper Impact Assessment and appraisal of the

³⁵ EAC 60th Meet - (Pgs 9-10)

<http://environmentclearance.nic.in/writereaddata/Form-1A/Minutes/03082016LB26J9TGMoM60thEAC.pdf>

³⁶ EAC 63rd Meet - (Pgs 23-55)

<http://environmentclearance.nic.in/writereaddata/Form-1A/Minutes/12092016615HIB3SMoM63rdEAC.pdf>

³⁷ Pages 46-49 of Annexure III of 63rd EAC Meet Minutes (supra)

project, specifically on issues such as plant technology / configuration, plant layout, precautions / conditions to be adhered to at the construction stage. Such significant construction activity may also compromise meaningful public hearing regarding the project as scale of construction activity before the public hearing makes it akin to fait accompli”.

Notably, the 63rd EAC Meeting Minutes do not quote from the additional observations / conclusions of Mr. Dixit and only quote the majority observations.

13. Thereafter, on 27th Dec, 2016, the Union Ministry of Power (MoP) granted further permission to the Project Proponent of BTPP for the usage of Sub-critical technology, extending the time limit for construction to 31st Dec, 2017. In the light of the Sub-Committee's Report and MoP's extension / permission for usage of Sub-critical technology, EAC considered BTPS for appraisal and recommended grant of Environment Clearance in its 2nd Re-constituted Meeting held on 20th Jan, 2017³⁸, subject to certain specific conditions such as legal undertaking by PP on ownership of the EIA/EMP reports, feasibility study of Merry Go Round (MGR) System for coal transportation, exploration of alternate technologies for reduced water consumption, submission to EAC a copy of impact assessment carried out by Ministry of Irrigation, Govt. of Telangana regarding possible downstream impact of withdrawal of 1.5 TMC of water per year from the Godavari.
14. Upon consideration of the recommendations of the EAC, Conditional Environment Clearance³⁹ (EC) was granted to BTPP by MoEF & CC on 15th March, 2017, for construction of a 1,080 MW plant (with 4 units of 270 MW capacity each), with a validity for 7 year period.

PART II: PROJECT – RELATED CONCERNS AND VIOLATIONS

E) Violations before grant of ToR:

1. Award of EIA study contract prior to application for grant of ToR:

In what could be considered as a very obvious anomaly, the contract for award of EIA contract to M/s Vimta Labs Ltd, Hyd was made prior to the actual application by the Project Proponent to the MoEF & CC for grant of ToR. While the application (Form-I) by TSGENCO to the MoEF & CC for grant of ToR was made on 3rd Feb, 2015; the EIA Study Contract for BTPP was awarded to M/s Vimta Labs on 29th Nov, 2014 i.e. more than two months before the submission of Form-I Application.

2. Baseline Data Collection Prior to Grant of ToR:

It is a matter of record that after the submission of Form-I Application, the EAC in its 32nd meeting dt. 23rd - 24th February, 2015 deferred its decision to grant ToR and instead sought more information and suggested certain changes to the proposed BTPP, including a direction to “*examine the feasibility of switching to super-critical technology.*” It was only in the subsequent 36th meeting dt. 19-20 May, 2015 that the Committee recommended certain additional ToR in addition to the standard TORs (as applicable) for undertaking detailed EIA study and preparation of EMP and thereafter, MoEF & CC granted ToR on 23rd June, 2015. However,

³⁸ 2nd Meet Minutes of Reconstituted EAC - <http://environmentclearance.nic.in/writereaddata/Form-1A/Minutes/04022017N4DFNOK82ndMinutesofMeetingEAC20thJan17.pdf> (Pgs 4-7)

³⁹ <http://environmentclearance.nic.in/writereaddata/Form-1A/EC/031720171TSGENCOEC.PDF>

as per its own submission, the Project Proponent, through Vimta Labs collected baseline data for EIA Study during the period between March, 2015 to May, 2015 (prior to grant of ToR).

Although MoEF's Notification dt. 4th Dec, 2012⁴⁰ requested all concerned stakeholders to make use of sector-specific manuals for preparation of EIA/EMP using Model ToRs, in cases such as BTPS, where grant of ToR was consciously 'deferred' by the EAC, PP was under an obligation to wait until Project-specific ToRs was issued by EAC, so that it could then use those ToRs, along with the guiding manuals to begin EIA preparation. The data so collected, prior to grant of ToR is in violation of the principles of EIA Study.

Thus, even before ToR for BTTPP was granted by MoEF & CC, the Project Proponent signed the EIA Study contract, awarded the EIA study even before the Application for grant of ToR was submitted to MoEF & CC and got Vimta Labs to collect the baseline data for EIA Study in the absence of ToR, thus violating the principles of EIA Study, the ToR which has been granted for the project and the spirit of the EIA Notification and Environmental Protection Act.

F) Violations after grant of ToR:

I. Project Construction after ToR, but before EC & CTE:

That the Project Proponent began construction activities at the Project site, after the grant of ToR itself and before obtaining prior mandatory Environmental Clearance from MoEF and Consent to Establish under EIA Notification, Water Act and Air Act from TSPCB has been admitted by the PP itself and has also been confirmed by the HRF, NGT, Site Inspection Committees of MoEF and the Ministry too.

- a. Admission by PP: Making a detailed narrative of the situation of urgency for power in the newly formed State of Telangana, the TSGENCO itself admitted in its Affidavit before the NGT that "*preliminary civil works have been take up after completion of environment impact assessment (EIA) studies within 10 kms radius of the Project site*" and that huge amounts have been spent for the same. Thus, the state govt. has gone on record to admit that construction activity at the project site began without the clearance from MoEF & CC and CTE from PCB. Not only, this, it sought permission from the Tribunal⁴¹ to continue the civil construction works, thus seeking a prayer to a) legalize an obviously unlawful act b) permit the state to commit further illegality by continuing construction without clearance from MoEF and CTE from PCB. [Ref: Para 14 of the Affidavit of Govt. of Telangana before NGT].
- b. Field Visit by HRF: The visit to the project site by members of Human Rights Forum (HRF), on 6th and 30th Oct, 2015, brought forth evidence, with photo-documentation, of on-going construction work. (placed before NGT by Applicant HRF and taken on record by NGT in its Order dt. 11th July, 2016).

⁴⁰ <http://www.moef.nic.in/assets/ia-tor-standardization.pdf>

⁴¹ However, the Hon'ble Tribunal, vide Order dt. 26.02.2016 refused to vacate the status-quo order by noting: "Even though we appreciate the anxiety shown by the learned counsel appearing for the Project Proponent insisting for modification of the Status Quo order, we are unable to accept the said contentions for the reason that law contemplates that without prior Environmental Clearance, no part of the project can be proceeded with."

- c. Site Inspection by Regional Office of MoEF: On 9th Jan, 2016, the Scientist "C" of MoEF & CC, Dr. M.T. Karuppiah inspected the project site and noted that the construction works including *laying of internal Roads, civil construction works for sub-station, construction of the Site Office Foundation work/erection of boiler House & ESPs, chimneys, Excavation of earth materials and levelling operation for the construction of ancillary buildings, Switch Yards and Construction of batching plant for mixing of concretes has been made in the area demarcated for greenbelt*", were being undertaken. The Committee noted that Project authority has commenced and continuing construction activities / Civil works of their proposed Thermal Power Plant without obtaining prior environment clearance from the MoEF & CC and 'Consent For Establishment' from the State PCB.
- d. Affidavit by MoEF: An Affidavit was filed by the MoEF & CC on 25th Feb, 2016 before the NGT wherein the Ministry confirmed and upheld the conclusions of the Site Inspection Report and assured the Tribunal that its *status quo* Order would be implemented and no further construction would be permitted.
- e. Order of NGT: The NGT, in its Order dt. 13th Jan, 2016 noted that, "*the learned counsel appearing for MoEF & CC has submitted that MoEF & CC has made inspection and found that construction is going on without obtaining prior EC by 3rd respondent*". Further, NGT, in its Order dt. 11th July, 2016 took on record the factual situation of construction prior to grant of EC in Para 3I, as follows:

"Even though as per the report it appears that there has not been any work carried out on the spot where the unit is to come up, it is not disputed or rather admitted by the third respondent that anticipating EC, certain construction activities have been carried on. The photographs produced by both the parties show that there has been site levelling activities, road formation, construction work below the ground level for the proposed boiler etc. Therefore, it is in the light of the admitted position that before the EC was granted the third respondent project proponent has proceeded with the construction activities, if not commencing the activities of the proposed unit, we have to consider the case".

- f. Inspection Committee of EAC: The Sub-Committee constituted by EAC in its 60th Meeting carried out a site inspection between 17th to 19th Aug, 2016 and placed its Report before the EAC in its 63rd Meeting and once again established that project construction activity began prior to the EC; although the majority of the Committee was of the *view that "the ground preparation activities for levelling and grading, excavation of soil for foundation, concreting of foundation and Steel reinforcement therein for some power plant units was over an area of just 1.85%"*.

One expert member, however, calculated that the construction / project activity was on 91 acres out of the total project area of 936.90 acres. Thus, 9.7% of project area was affected due to construction activity. He calculated that 4,07,769 cu. mts of earth was excavated, 4,276 cu. mts of concreting work was undertaken and 1,448 MT of reinforcement steel was used during the construction of the project site and it would have been impossible to undertake this scale of construction within 79 days (*as contended by the Project Proponent before the EAC Sub-Committee that the project works have been undertaken only after the completion of the EIA studies on 8th September, 2015*).

Thus, despite an overwhelming evidence of construction prior to the environmental clearance, no action, as per law was initiated and actually ensured by the EAC, MoEF, PCB and NGT, although in the circumstances, the Project Proponent (concerned officer/s of TSGENCO) are liable for imprisonment of 5 years under Section 15 of the Environmental Protection Act and a minimum of one and half years to six years imprisonment under Section 25 read with Sections 44 and 47 of the Water Act and Section 21 read with Sections 37 and 40 of the Air Act, respectively.

Unlawful construction works in full swing at the Bhadradri Plant site prior to receipt of EC and CTO (Photo Credit: Ayesh Minhaz, Independent Journalist)



2. Violation of the *Status Quo* Order of NGT: Inaction by NGT

The NGT issued a *status quo* Order on 12th Dec, 2015, effectively restraining the Project Proponent from undertaking any construction activities at the BTTPP site. However, the Applicant before the NGT visited the Project site on 24th Dec, 2015 and 5th Jan, 2016 and photo-documented continuation of various works by the Project Proponent, such as Earth excavation and transportation by the Lorries, Dumping of excavated soil, laying of internal roads, mixing of concretes through batching plant, levelling of earth, construction of Chimneys and Boilers etc. The Site Inspection Committee of the MoEF & CC which visited the project site on 9th Jan, 2016 further confirmed the construction, subsequent to the *status quo* Order in its Report dt. 11th Jan, 2016. The continuation of project works in violation of Hon'ble Tribunal's *status-quo* order was also re-confirmed by the MoEF & CC in its Rejoinder before the NGT as noted above.

Thus, violation of the *status quo* Order of the NGT must have attracted action against the concerned authorities, as per Sections 26 and 27 of the National Green Tribunal Act,

2010. Given the fact that violation of status quo order was established, beyond doubt and admitted by the Regional Office of MoEF, by site visit, and by the MoEF, through its Affidavit dt. 25/2/2016 before NGT, the immediate action should have been a direction from the NGT itself to proceed against TSGENCO officials for violation of Sec 26, 27 of NGT Act. By its July, 2016 Order, NGT has directed PCB and other concerned authorities to take action against TSGENCO officials for the violation of EIA Notification, 2006 and Water Act and Air Act. But the offence of violation of Sec 26, 27 of NGT Act by TSGENCO has gone unquestioned and unpunished by the NGT.

3. Contemptuous non-compliance of NGT's Order to prosecute TSGENCO officials for unlawful construction:

It is a clear contempt of judicial order that although the Hon'ble NGT directed in its Order dated 11-07-2016 that authorities competent, including the second respondent shall initiate appropriate penal action' within 4 weeks of its order and expeditiously complete the criminal prosecution of officials responsible for illegal construction, both the said authorities (MoEF & CC and Pollution Control Board) have not fully complied with the said order for criminal prosecution of the officials of TSGENCO who are responsible for illegal construction. In the circumstances of the NGT Order, PCB should have promptly initiated action for construction without CTE which is violation of Air Act and Water Act. Likewise, MoEF & CC, through its Regional Office should have promptly initiated penal action since EPA Act and EIA, 2006 were been violated, due to construction prior to grant of EC.

Before the appraisal of the proposed project and recommending it for clearance, EAC ought to have ensured that criminal prosecution of the concerned officials is done and complete. MoEF & CC also should have also ensured penal action, as per NGT's order before granting clearance to BTPP. Although, it is more than 15 months since the Order for initiation of penal action within 4 weeks and expeditious completion of prosecution, local activists state that criminal proceedings have been initiated only against some lower-rung engineers, but not against senior, decision-making officials.

4. Violation of Water (Control And Prevention Of Pollution) Act, 1974 and Air (Control And Prevention Of Pollution) Act, 1981:

It is a matter of record that the project construction began in Oct, 2015, while the public hearing was held almost 6 months later, in March, 2016, after the proceeding before the NGT began and clearance was given by MoEF, a year later, only in March, 2017. CTE can be given lawfully, only after EC has been obtained and the EC is infact one of the documents to be furnished to the PCB, for grant of EC. Therefore, the construction carried out in Oct, 2015, which continued even after the *status quo* Order was obviously without obtaining consent from PCB under Air and Water Act and at a time when lawfully, even the PCB could not have granted such consent. Thus, the construction which TSGENCO undertook was unambiguously in violation of the provisions of the Water Act and Air Act.

Section 25 of Water Act prohibits any person from establishing any industry without obtaining consent to establish from the Pollution Control Board. Further, Section 46 provides that whoever contravenes Section 25 shall be liable to imprisonment and in case such 'persons are companies, the persons-in-charge shall be proceeded against legally, as per Section 47 of the

Act. Further, construction activity undertaken without obtaining the consent of PCB under Section 21 (1) of the Air Act, 1981 is also a clear violation. Sec 37 provides that whoever fails to comply with the provisions of Section 21 shall be held liable for imprisonment. Similarly, Section 40 of the Air Act, 1981 provides for action to be taken against that companies which are establishing or operating their industries without the Consent for Establishment of Air Act. The PP could not have undertaken the construction activity that resulted in dust pollution (in whatever measure), without the consent of PCB. Villagers conveyed during field visit that the air and noise pollution caused by the illegal construction of the project had affected their crops and health, to an extent, at that time.

Despite these violations, the PCB, which is the Authority mandated and expected to take up action did not take any *suo moto* or pro-active action, even after the same was brought to its notice. Instead, it gave its own report that no construction was undertaken and filed an Affidavit before NGT seeking the vacation of *status quo* order !

G) Limitations of Sub-critical technology: Environmental and Financial Implications:

A major issue with the BTTP is the use of comparatively less efficient and environmentally more polluting sub-critical technology of 270 MW units in this age and time, when 500 – 800 MW units has become the norm. (super critical technology). Infact, United Andhra Pradesh itself had stopped construction of units below 500 MWs long ago, since smaller units result in increased production, other costs and environmental pollution (Raghu, K. 2016). The Report of the Working Group on Power for Twelfth Plan⁴² (2012-17), recommended that MoP/CEA could issue an advisory to all utilities to mandatorily install supercritical units beyond 12th Plan. Infact, much before this, the MoP issued an Office Order dt. 13th Nov, 2009 laying down that “13th Plan Capacity Addition will be through super critical units only”. It may thus be noted that the Project Proponent has decided that sub-critical technology should be adopted for the proposed project, despite directives of the Union Government to the contrary, especially in the 13th Plan. This is revealed from the letter dt. 16/4/2015 of the Chief Engineer, TSGENCO to the Member Secy, EAC (T), wherein it is stated that “Further, the required equipment is readily available with BHEL for establishing 4x270 MW Thermal Power Plant within short period of 24 months”

The Co-Convenor of the Telangana Joint Action Forum and Convenor of the Telangana Electricity Employees Association, Mr. Raghu Kancharla, in his book *Telangana Vidyut Rangam lo em Jarugutundi*⁴³ (What is happening at the Telangana Vidyut Rangam - 2016), has summed up some key environmental and financial implications, due to usage of sub-critical technology.

Major Aspects of Additional Costs:

- I. **Auxiliary Consumption:** Power consumed by the Plant for its own functioning is called Auxiliary Consumption (AC). While the AC of 270 MW plants is about 9%, it is only 5.25% for 800 MW plants. Thus for 270x4 = 1080 plant, 300 million units of power would be wasted each year which would come upto Rs. 150 crores wastage.

⁴² Pg 39, Report of the Working Group on Power for Twelfth Plan (2012-2017), Ministry of Power, Govt. of India, New Delhi (Jan, 2012) (http://planningcommission.gov.in/aboutus/committee/wrkgrp12/wg_power1904.pdf)

⁴³ Raghu K (2016) *Telangana Vidyut Rangam lo em Jarugutundi* (What is happening in Power Sector of Telangana), Telangana Joint Action Committee, Hyderabad.

2. **Annual Maintenance:** Annual Maintenance costs is Rs. 23.90 lakhs / MW for a 270 MW plant, while the same is 14.40 lakhs /MW lakhs for a 800 MW plant. Thus, additional costs of Rs. 9.5 lakhs for each MW. i.e. 102.60 crores extra cost for 1080 MW.
3. **Heat Rate:** Heat required to generate one unit of power. A 270 MW plant requires additional coal. Considering that a kilo of Indian coal releases 4500 kilo calories of heat, a 1080 MW TPP would require 1,78,680 tonnes of additional coal. Cost of Indian coal per tone is Rs. 3,500. The annual additional cost would be Rs. 62.53 crores.

Considering all the above, annual additional cost on state exchequer due to the Bhadradi sub-critical plant is Rs. 315 crores. Over a project period of 25 years, this burden is 7875 crore rupees and totally avoidable⁴⁴.

Other Crucial Aspects:

4. **Additional Land:** Each MW of a 270 MW plant requires an additional 0.65 acres of land (as against 800 MW plant). Thus, a 1080 MW plant would require 700 acres of land additionally and unnecessarily.
5. **Additional Water:** 270 MW plant requires 0.50TMC of additional water each year. Besides wastage of water, crores of rupees would be required to pump and purify this water.
6. **Additional Oil Cost:** The additional Oil required as part of the power generation process would run into crores of rupees.
7. **Additional Environmental Impacts:** Extra usage of coal is likely to lead to increased pollution and environmental impacts. Besides, measures to avert the same would again require expenditure of crores of rupees.

Contrary Views of Same Consultant in Different EIAs:

The Consultant is expected to make an accurate, realistic and scientific assessment of the environmental impacts of the technology-type chosen by the PP, vis-à-vis technology mandated by policy and suggest eco-friendly alternatives. In the instant case, the Consultant should have pointed out, in the EIA, the comparatively heavier environmental costs, due to adoption of sub-critical technology vis-à-vis super critical technology.

However, on Pg C5-I, in the Chapter on 'Analysis of Alternatives' in the EIA Report, the Consultant states the following:

"To achieve better efficiency of the plant and more competitive tariff a higher size unit of 525 MW can be adopted. However the outage of unit will result in total loss of the plant capacity. A configuration of 4x270 MW will be advantageous as at least 75% of generation is available with the outage of one unit. The plant capacity with two

⁴⁴ Estimates by some environmentalists indicate that supercritical plants may have comparatively higher capital cost, but this can be offset by the savings in fuel cost.

generating units also gives flexibility in operation by adjusting load as per supply & load demand”.

It is clear from the above that not only has the Consultant not stated the environmental costs of sub-critical technology, but has in fact prioritized / recommended an environmentally less benign technology over an environmentally sound one and has actively promoted the same as “advantageous”. This is clearly beyond the scope of a Consultant’s mandate.

In addition to the above, what has also gone unquestioned by the EAC is the differing stance of the same Consultant, Vimta Labs Ltd., favouring sub-critical technology in the case of BTPP and super critical technology in the case of certain other projects, as illustrated below. Vimta Labs, in the context of expansion of KTPS, Palvancha plant with an addition of a 800 MW unit, by the same PP, TSGENCO listed the following advantages as reasons for adopting supercritical technology⁴⁵

“Hence adopting supercritical technology for higher size of coal based unit leads to enhanced plant efficiency, less fuel consumption and reduced green house emissions.

- *“Superior technology*
- *Reduced green house emissions*
- *Environmental friendly / CDM benefits*
- *Operational flexibility to grid fluctuations*
- *Shorter start-up times*
- *Reduced coal consumption*
- *Savings in coal cost*
- *Improved ash management”.*

In the EIA⁴⁶ for the Damodaram Sanjeevaiah Thermal Power Station (Stage-II), Expansion To 2 X 800 MW, Nellore District, Andhra Pradesh, the same Consultant Vimta Labs nominated by APGENCO opined *“Two options, sub-critical and supercritical parameters were examined related to power generation of thermal power plants. Super critical Boilers have high steam parameters and higher efficiency. The major benefit of adopting higher system cycle is reduction of in emissions of SPM, CO₂, SO₂, and NO_x. Hence, super critical parameters are considered for the proposed boiler configuration.”*

Mr. L Bajaj, Chairman, CEA in his foreword to the Report of the Committee to Recommend Next Higher Size of Coal Fired Thermal Power Stations⁴⁷, stated the following in November 2003

Considering the very successful operation of 500 MW units over the last decade, and with supercritical technology & large unit sizes achieving high reliability and availability

⁴⁵ Pg 171, Sec 5.2.1 of EIA of Kothagudem Thermal Power Plant (Sep, 2014)

<http://environmentclearance.nic.in/writereaddata/EIA/19092014J5MH9A5EKTPEIAEMPreport.pdf>

⁴⁶ Pg C5-1 at Sec 5.1.2 of the Comprehensive EIA for Damodaram Sanjeevaiah Thermal Power Station (Stage-II), Expansion To 2 X 800 MW, Nellore.

<http://environmentclearance.nic.in/writereaddata/EIA/25092014I4WS5R8XEIAreport.pdf>

⁴⁷ Report of the Committee to Recommend Next Higher Size Of Coal Fired Thermal Power Stations (November, 2003), Central Electricity Authority, Ministry of Power Government of India New Delhi.

http://www.cea.nic.in/reports/others/thermal/tetd/committee_recommend_thermal.pdf

internationally, it is recommended to adopt units of 800-1000 MW with supercritical parameters in the country. I am sure that adoption of large size units would provide much needed fillip to the pace of thermal capacity addition and also result in reduced impact on environment due to efficiency enhancement.”

The said Committee also recommended that “*BHEL is fully prepared to take up manufacture of supercritical units upto 1000 MW size and have technology arrangements in place. The present capacity of BHEL to supply thermal units of 4500 MW per year could be increased to about 6000 MW per year if sufficient orders are available..... In view of the above, the committee recommends that the next higher units size adopted in the country should be from 800 to 1000 MW*”

H) Violations and Gaps related to the Public Hearing:

The Project Proponent submitted the Draft EIA and EMP Report to the Telangana State Pollution Control Board (TSPCB) on 3rd Feb, 2016. Thereafter, the Regional Office, Kothagudem issued a notification in Telugu daily “Namaste Telangana” and English Daily “The Hindu” regarding the proposed public hearing on 17th March, 2016. The Public Hearing was held on 17th March, 2016, as scheduled, in the premises of proposed Bhadradi Thermal Power Project, Seetharampuram village, Uppaka Gram Panchayat, Pinapaka Mandal, in erstwhile Khammam District (Now Bhadradi Kothagudem Dist.). Proceedings of Public Hearing were forwarded to MoEF & CC on 29th March, 2016 and a copy of the same is incorporated in the EIA Report as well. (supra)

The aforementioned Order of NGT dt. 11th July, 2016 mentioned that, out of nearly 2,700 people who participated from the surrounding villages during the public hearing conducted on 17th March, 2016, only 27 members gave (i.e. 1% people present at the hearing) their opinion welcoming the project. [Ref: NGT Order dt. 11th July, 2016]. A simple numerical analysis of the speakers (as recorded in the PH Report) reveals that out of the total number of 31 persons who had the opportunity to speak during the Public Hearing, an overwhelming 19 were political party / elected representatives, 4 were officials, only 6 were general public and one representative each of the Telangana Electricity Engineers Association and Small Scale Industries Association, Khammam. Most of the speakers welcomed the Project and some of them raised concerns on employment, disbursement and denial of compensation, pros and cons of sub-critical vs super critical technology, environmental impacts, interests of the adivasis, impacts on agriculture etc.

It is notable though that while the PP claims that there has been a predominant support for the Project during the Public Hearing, HRF, which is the Applicant before the NGT claimed, that the hearing was conducted under the shadow of the police. In a press release issued after the hearing, the Forum stated that the Khammam District president of HRF, D Adinarayana and District General Secretary, K Venkata Narsaiah (Applicant before NGT) were taken into preventive detention by the district police on the morning of the Public Hearing and were kept in detention in the Police Station for the entire day of the Public Hearing.

Mr. Narsaiya, indicated during field visit that he was placed under strict police surveillance for about a month from the date of notification of Public Hearing by PCB, till the date of PH. He also stated that the project authority, through the police, resorted to phone tapping, full-time deployment of police around houses of key local activists, frisking of people at the PH site etc. There appears to be no justification for such measures being resorted to by the State Govt, towards

credible public interest groups and activists that have a track record of raising key people's concerns in the State. Such an approach raised queries as to whether the Public Hearing was conducted in a free, fair and fearless atmosphere for people to participate.

Human Rights Forum, in its Release, claimed that “*local people were selectively allowed entry into the public hearing arena near Sitarampuram village and the whole area was teeming with police.....Moreover, in villages of Pinapaka and Manuguru mandals that are likely to be impacted by the project, the local people have no proper access to information related to the project which is an essential pre-requisite to a public hearing. Unless and until the issues which are relevant for the environmental clearance of the project are made public in a form intelligible and accessible to the people likely to be affected one way or other by the project, a public hearing will be a mere formality, even a farce.*

The Environmental Impact Assessment Study (EIA report) in English which runs into 702 pages has not been made available in Telugu in a comprehensive form to the local people. A mere summary of 12 pages in Telugu cannot do full justice and will not be sufficient for the people to understand the environmental impact and take an intelligent stand in the matter. In the normal course, a Telugu translation of the full EIA report should have been made available to each village, and officials of the Revenue Department as well as the Telangana State Pollution Control Board (TSPCB) made themselves available to the people to explain matters to them and clear their doubts. Only then can a meaningful public hearing be held. None of this has happened. Even the EIA report as it stands does not reflect the full reality of the environmental impact”.

An appraisal of the Public Hearing Report also leads one to conclude that the primary purpose of a ‘Hearing of the People’ is not being served or rather the process itself is being designed and conducted in such a manner that the common, including marginalized persons such as small farmers, adivasis, landless persons, women etc. who are much likely to be adversely impacted by the Project are neither adequately informed prior to the hearing nor is their effective participation during the hearing ensured. That none of the people and their ‘representatives’ actually refer to the EIA Report during the hearing indicates that the EIA Report is a document too distant from the people, in whose name it is drafted and for who it is meant. The lack of transparency on the mechanism of deciding as to ‘who would be permitted to speak’ and “who would not be”, during the Public Hearing is also an important feature that needs serious re-think.

There seems to be no cogent criteria for deciding on the various categories of persons who would speak. For instance, out of ‘2700’ people admitted to be present, not a single woman from the villages in question was given an opportunity to speak during this particular hearing. Certain women who were spoken to during field visits indicated that they wanted to depose at the Public hearing, but the police did not allow them access to the stage, stating not more than one person per village could speak ! The mechanical way of conducting these hearings, with authorities not even caring to make a pretence of adequate representation of people of different categories from affected villages is indeed a serious concern !

It may be noted here that the Hon’ble High Court of Himachal Pradesh in its Judgment dt. 4th May, 2012 in Him Parivesh Environment Protection Society & Anr versus State of Himachal

Pradesh⁴⁸ issued some important directives with regard to the public hearing and EIA process, as follows:

109. c) The Pollution Control Board shall ensure that whenever any public hearing is held, the people of the area are well informed about the public hearing and they are also informed about the benefits and the ill-effects of the project. The Pollution Control Board must have its own machinery and own scientists who should give an independent opinion on the pros and cons of the project. These shall also be placed on the website of the PCB.

d) In future whenever any studies are being carried out by any project proponent while preparing the EIA reports, the study shall be carried out only after notice to the State Pollution Control Board, MoEF/EAC in case the project requires clearance at the central level and also to the inhabitants of the area where such studies are to be carried out and project has to be established. Notice to the public shall be given in the same manner notice of public hearing is given.

Further, as per the EIA Notification, 2006, the public hearing has to be conducted before any of the construction works of proposed project. The EIA report of the proposed project must be complete in all aspects and must give complete information about the proposed project. However, in the case of BTPP, the hearing happened almost 6 months after the construction began unlawfully, that too after the intervention of the NGT. The EIA Report of BTPP was deficient and incomplete on various issues and also does not take into account the damage and impact which has been caused as a result of the illegal construction of the proposed project. The EAC must have delved into all these issues which are related to public hearing. As upheld by the Supreme Court and NGT in many cases⁴⁹, a public hearing is not a mere formality, but it is an instrument of transparency in the EIA process.

Villagers of Edullabayyaram recounting the heavy police presence during the BTPS public hearing



⁴⁸ <https://www.elaw.org/system/files/Jaypee%20case%20order%20HP%20CWP5862010.pdf>

⁴⁹ Judgment of Hon'ble High Court of Himparivesh & Ors Vs State of Himachal Pradesh & Ors [CWP No.586 of 2010 Along with CWPIL No. 15 of 2009], the Hon'ble Delhi High Court in Utkarsh Mandal Vs Union of India, Samarth Trust Vs Union of India [W.P. (Civil) No. 9317 of 2009] and the Hon'ble Tribunal in Samata Vs Union of India [2014 ALL (I) NGT REPORTER (1) (SZ) 1].(Annexure)

I) Social Impacts: Concerns on Loss of Livelihood and Rehabilitation:

R&R Details in the EIA Report: As admitted by the PP⁵⁰ in the EIA Report itself, the Bhadradri Project is located entirely within the Schedule-V area of the Constitution of India, wherein most residents are adivasis. Thus, as per Article 243 of the Constitution, the Panchayats (Extension to Scheduled Areas Act), 1996 and the Land Acquisition and Rehabilitation Act, 2013, the Government is required to follow certain specific procedures and ensure special safeguards in the process of land acquisition, resettlement and rehabilitation.

The environmental clearance to the BTTP dt. 15th March, 2017 states that as per CEA norms, land requirement for BTTP is 1177.20 acres, but the same has been minimized to 936.92 acres (with a break up of 332.52 acres for main plant area; 250 acres for ash dyke; 50 acres for township and 304.40 acres for green belt). Of the total land, 87% is government land and 13% is private land. The clearance also states that the livelihood of 655 families in three villages of Ramanujavaram, Setharamapuram and Eddullabayyaram would be affected by the Project. An R&R Package of Seventeen crore, Thirty Eight Lakhs has been awarded by the Collector and 346 local persons would get direct employment based on their qualification.

The EIA Report at Pg. C7-69-70 gives a village wise break up of these 655 affected families as follows: Ramanujavaram (445 families), Eddullabayyaram (175 families) and Setharamapuram (35 families). On the same page, it is stated that there are 654 “enjoyers/assignees/encroachers” on 770.16 acres of Govt. land and 76 such cultivators on 107.26 acres of assigned land. Thus, it is admitted that there are 730 cultivators on 1031.19 acres of land. The only details of R&R benefits (cash compensation) deposited with the Dist. Collector / disbursed to the affected persons, as stated in the EIA Report are as follows:

- 1. “An amount of Rs. 9,06,47,640/- towards land compensation for patta land to an extent of 148.11 acres⁵¹ and other charges as per the demand note raised by the District Collector, Khammam vide RC No. G/2243/14 dated 16.08.2015 was deposited with the Dist. Collector, Khammam on 21.09.2015 for disbursement to the land losers*
- 2. An amount of Rs. 50,51,54,153/- towards ex-gratia and R&R package to the land losers for both the assignees and non assignees (encroachers) approved by the govt as per the memo no. 8352/Assn.I(1)/2014-2 dated 7.11.2014 of principal secretary to government Revenue dept. Government of Telangana was deposited with the Dist. Collector, Khammam, on 24.11.2014 for handing over advance possession of land to an extent of Ac. 1031.19 gts”.*
- 3. 80% of the above amounts have been disbursed to the land losers. Balance disbursement of 20% is under process.*
- 4. The above Lands are under possession of TSGENCO”.*

⁵⁰ At Pg. AII-7 of the EIA Report – Compliance Status of ToR No. 34

⁵¹ Pt. 26 of Response to Adv. Ch. Ravi Kumar in the EIA Report mentions that 148.11 acres land acquired from 72 patta and holders.

Visit to Bhadradi TPP affected-villages:

A visit to villages Eddulabayyaram, Seetharamapuram, Dhammakapeta Panchayat and Chikkudugunta affected by the Bhadradi Thermal Plant was undertaken in March and again in September, 2017. Interaction with the affected families revealed the following:

1. The affected persons claim that they have not been given appropriate and full R&R benefits as per the LARR Act, 2013 and there are numerous grievances with regard to the land acquisition process itself that have not been addressed by the project and revenue authorities. Infact, there has been no proper dissemination of information about the rights and entitlements of the affected families under the Land Acquisition and Rehabilitation Act, 2013 and PESA Act, 1996.
2. While the villagers do know that their lands have been acquired for the Thermal Plant, they have little information about the actual environmental issues and impacts of the Project, the safeguards and protective measures that must be undertaken by the project authorities and most importantly that all this information had to be provided to them in an understandable manner, before the project work begins and their Gram Sabhas had to be consulted before commissioning the Project.
3. When asked if all relevant documents related to the Project were provided to the concerned Gram Sabhas in the local language, whether the pros and cons of the Project, especially the social and environmental aspects and impacts were explained to the people in detail and whether their full Gram Sabha situated in the Scheduled Area was consulted prior to land acquisition as per the mandate of Section 4(i) of the PESA Act, 1996 and LARR Act, 2013 (as the PP claims, has happened in the EIA), they emphatically stated NO. When asked if there has been any development in terms of the assurances of jobs, the response was again a NO.
4. There has been no final updating of land records before LAQ process. Particular care must have been taken in this regard, since in many adivasi areas and even here, there is an informal within-family division of land after marriage of sons, but the same is not updated / reflected in land records, as mutation does not take place promptly, even for a very long time. Thus, while, as on date of LAQ, there were many more land owning cultivators, fewer people / only the elder male member in the family was treated as land owner and extended R&R benefits.
5. Most women in the adivasi areas own at least small parcels of land, since culturally adivasi elders here have a practice of giving a piece of land to their daughters, at the time of marriage. However, there is a widespread complaint that married adivasi women, who are land-holders and whose land has been affected, have not been compensated by the authorities.
6. A complaint of a serious nature that surfaced during field visits and requires investigation is the payment of 'award compensation' to some non-adivasis ! Since the entire area of Bhadradi is Schedule-V Area, non-adivasis cannot hold land, as per law. However, it is alleged that land acquisition award compensation has also been paid to many non-adivasis, since they have been 'holding lands' and possessing land records in their names. It is quite likely that the Revenue Dept, could have given some documentary proofs/'pattas' to non-adivasis in a shady, fraudulent and unlawful manner, many decades before, as is not uncommon in these parts. It is a

completely different challenge though, as to how and whether this issue can be re-opened, after all these years.

7. During the field visit last year, some villagers complained that their two crop agricultural lands have been acquired by the project proponent and some of them are still due to receive the compensation for their lost lands. As their lands have already been acquired and the construction of the project has begun, they have been out of work for over a year! This has affected their livelihood security.



Adivasi Villagers in Dhammakapeta Panchayat complaining of irregularities in land acquisition process and denial of R&R entitlements.



Fertile farm lands of adivasis in Chikkudugunta Village that have been acquired for the Bhadradi Thermal Plant

Fertile agricultural lands of Village Seetaramapuram to be affected by the BTPS



The cursory manner in which the issue of land acquisition as well as resettlement and rehabilitation of the project affected persons has been dealt with in the EIA Report is indicative of the fact that R&R is clearly not a priority, not even a matter of due concern for the project proponent. For instance, the EIA Report is unclear as to whether the 655 affected families are in addition to the 730 cultivators on government land and assigned land, as stated in the Report. Table 7.20 (B) at Pg. C7-70 of EIA Report states that there are 730 “enjoyers / assignees/encroachers” on 1031.18 acres of land. However, the Table 7.20 (C) at Pg. C7-70 of EIA Report states that there are 655 affected families. [Since 655 oustees, also include land owning major sons who have been given R&R, it appears that 730 could be a different category]. Thus, there appears to be an admitted lack of clarity and finality on the total number of PAFs.

It may be noted that there is no mention or clear undertaking that the entire procedure prescribed in the Land Acquisition and Rehabilitation Act, 2013 has been followed during the process of acquisition of land, disbursement of compensation and rehabilitation of the PAFs. In the bulky EIA Report, the aspect of R&R has been dealt with in 1.5 pgs under the head “R&R Report – Sec 7.9, PGs C-69 to C-70”. The section does make a mention that an extent of 1031.19 acres of land has been alienated to the TSGENCO under provisions of 2013 Act. This implies that SIA also should have been conducted as mandated under 2013 Act, but there is no reference to SIA in this entire 1.5 pgs chapter. The EIA Report (Pg. 367) mentions that due to ‘file size’ CSR Report would be submitted in hard copy and CD Form. However, CSR Report cannot be considered as an SIA Report in terms of 2013 Act. It is thus evident that Social Impact Assessment as prescribed and mandated by the 2013 Act has not been conducted. The same conclusion has been arrived at upon a field visit to the affected villages. Thus, in addition to land-owners, who are categorized as land-losers, it appears that no effort has been made to identify and rehabilitate those persons who do not own land, but are dependent on the land for their livelihood (landless persons) or other oustees residing in / eking out a living in the project area. It was precisely for these reasons that conducting a comprehensive SIA was necessary. Non-implementation of the mandatory Social Impact Assessment provisions in the LARR Act, 2013, has led to denial of R&R to landless families and agrarian workers.

J) Other Concerns and Violations:

I. Issues of Coal Linkage and Coal Transportation:

Item 5 of the ToR letter states “The Environmental Clearance shall be applied only after fuel and water linkages are firmed up” (Page 6 of 7, Annexure-I of EIA). The Project Proponent initially claimed that fuel usage for the project would be 50% indigenous and 50% domestic coal. But, it was eventually decided to run the project with 100% indigenous coal. The EIA includes a copy of the MoU signed between TSGENCO and SCCL, which states that G-9/G-10 Grade coal is being requisitioned from the SCCL, having the similar GCV (4550 Kcal/kg) as originally envisaged. (Pg 329 of EIA).

In response to queries by independent expert, Dr. Babu Rao (part of EIA), the PP has stated that “*coal characteristics presented in the draft EIA are SCCL coal fields only*” ! However, only the Union Ministry of Coal has the legal authority to allot firm coal linkage and not the SCCL. The Project Proponent has not provided documents which provide details of allocation of coal block or a coal mine from the Ministry of Coal.

Coal Transportation Details Have Not Been Provided And Its Impact Has Not Been Studied:

Para 5 of the EC states that coal transportation has to be done by rail only. In the Minutes of 20th Jan, 2017, also, the PP informed EAC that “coal transportation would be done by rail only”. However, in response to query by Adv Ravi Kumar [end section of EIA, Page No not given], during the stage when 50% imported coal was still considered, PP stated that *“the Project site will be connected through a new railway station from Manuguru railway station. However, M/s SCCL has now offered for supply of equivalent quality of coal from their nearby mines and it will be transported through the existing railway network”*.

Since the nearest railway station for the project site is at a distance of 10 kilometers, the coal transportation has to be done by road transportation only for this 10 kms stretch, if no connecting rail line is constructed. The Project Proponent estimates that the project will need about 4.2 Million Tonnes of Coal per Annum. PP has however, not provided any details of the transportation of the coal from the Manuguru railway station to project site and has also not studied the impacts of transportation on the AAQ. Impact of increase in air (particulate) pollution due to transport of coal through rail has thus been ignored in the EIA.

2. Issues related to Fly Ash:

The Project Proponent has claimed in the EIA that 9 cement industries have expressed interest to lift the fly ash. The material details such as the copies of MOUs, etc. have not been furnished by the Project Proponent, whereas the ToR issued to the Project by MoEF on 23rd June, 2015 specifically requires at Point xx that *“Details of fly ash utilization plan as per the latest fly ash utilization notification of GoI along with firm agreements / MoU with contracting parties including other usages etc. shall be submitted. The plan shall also include disposal method / mechanism of bottom ash.* The EC mentions that 3603.138 Tonnes per Day (TPD) of fly ash would be generated. This will have huge stake on AAQ and also on the other aspects of environment. The EIA report of the proposed project does not satisfactorily address this.

3. Project Site Within HFL+500 mts of Godavari River

The GPS coordinates furnished by the Project Proponent in the Final EIA Report, indicate that the proposed project clearly falls within HFL+500 meters distance of the Godavari River and this is clearly in violation of ToR 21. There are two tributaries of Godavari River which are joining on the either sides of the River. [although state claims in the EIA Report (Pg. 323 – Chart on ToR Compliance) that the plant boundary is at proposed distance of 800 mts].

The project site is also right next to the road connecting Manuguru and Eturunagaram towns. The project is interlocked between Godavari River and the road connecting the above-mentioned towns. Further, the Ash Pond is right on the other side of the road. Thus lack of environmental appropriateness for site selected for the project is a serious issue that the EAC must have looked into. Raghu Kancharla, in his book has stated that “Not only the transmission lines, but the BTPP itself is being constructed on the banks of river Godavari. Construction of Polavaram Dam can increase the risks of submergence of supply lines of the Project”.

4. Inadequate Hydro-geological details furnished:

The EIA Report of the proposed project also does not provide any details of the intake point from which the water will be taken from Godavari River, the water-availability at the intake point, the downstream impacts due to the intake water from the project, etc. In fact, the Hydro-geological impact assessment report has not been made available in the public domain till date by the Project Proponent. Thus, the crucial hydro-geological details have not been provided and the impact of the project on the hydro-geology has not been properly studied.

5. Health Impacts:

The EIA Report makes only a passing mention of the likely health impacts and that too in the context of 'urbanization due to industrialization' and states that this *"may have an impact on the health status of both migrants and local population. The incidence of public health like, HIV/AIDS, TB and other respiratory related issues may increase"*⁵². Numerous studies across the world have provided over whelming evidence of adverse health impacts such as pneumonias and asbestosis due to dust, heat, noise, vibration, radiation and waste disposal from coal-fired Thermal Power Plants. Details of adequate mitigation measures are felt wanted. TSGENCO has been responsible for serious environmental violations', leading to health impacts in the Kothagudem Thermal Power Plant area, Palvancha in the vicinity, as is noted in detail in the subsequent chapter.

6. Alleged Plagiarism in EIA overlooked by EAC:

In their response on the EIA to the EAC, Retired Scientists and independent environmentalists, Dr. Babu Rao and Dr. Venkat Reddy have stated as follows:

"Most of section 3.2.4 on Geology is lifted verbatim from "Ground Water Brochure", Khammam District, September 2013 of the Central Ground Water Board. Subsections on Crystalline Formations, Pakhals, Semi-consolidated Formations, Unconsolidated Formations, Depth to Water levels, Pre Monsoon Water levels, Water level Fluctuation, Long term water level trends were all copy pasted in the draft EIA without referring to the source. Text of the subsection 3.2.5.I is lifted from another source Phadnis, V., Kulkarni, H. and Badarayani, U. Study of Pondhe watershed area, Purandar taluka, Pune district, Maharashtra. ACWADAM Technical Report ACWA/2005/H-I, 2005. Reference (Kulkarni and Deolankar, 1995) that is part of the text copied is retained but details of the reference are not included in the report anywhere. These are only few examples; we have prepared an exhaustive list of instances of plagiarism in the EIA. We hope the officials at MoEFCC will check the reports for plagiarism and take necessary action".

7. Bleak Possibility of Alternative Transmission lines:

In his Book⁵³, Mr. K. Raghu has stated that there must generally be an alternative transmission line for supply of power generated from any project, although, the same does not seem possible

⁵² Section 4.3.9.5 at Page C4-32 of EIA Report.

⁵³ K Raghu (2016) Telangana Vidyut Rangam lo em Jarugutundi (What is happening at the Telangana Electricity Sector - 2016), Telangana Joint Action Committee, Hyderabad.

in the present case, since if it has to be done, it can only be through the forest and after obtaining MoEF's clearances, which would be a time-consuming process with environmental implications. There is only one line which is also presently being built from Manuguru to Jooloorupadu via Boorgampadu. Thus, there would be no alternatives in case this line fails for some reason and power supply would have to be stopped! Even assuming a second transmission line is constructed, the costs would be much more.

8. Impact on Agriculture:

The EIA does not go into the issue of impact of BTTP on agriculture in the region, by which a large number of farmers are likely to be affected. This is a key component of the local environment. There is no mention of the sizeable crop-losses likely due to ground level Ozone (O₃), as has been documented in many studies world over. The National Crop Loss Assessment Network (NCLAN), United States published a number of reports and scientific publications quantifying the loss based on Ozone concentration prevalent. A study⁵⁴ carried out in 2004 in the Sapota orchards of Dahanu region of Maharashtra concluded that the high pollution due to the Dahanu TPP has a clear adverse impact on crop productivity in the region. Likewise, a joint publication of NBRI, Lucknow; National Physical laboratory, Delhi and University of East Finland on "Impacts of increasing ozone on Indian plants"⁵⁵ concluded that "Current information about measurements of precursor formation and ozone concentrations over Indian region, modeling efforts and satellite observations indicate that plant production is vulnerable to high ozone levels..." Notably, the PP has neither denied externalities like crop losses nor admitted crop losses and proposed a mechanism for mitigation and compensation.

9. Pollution and Emissions:

The serious issue of impact of the Project due to burning of coal needs to be studied thoroughly and ameliorative measures planned. However, this climatic aspect has not been addressed in the EIA, especially in the light of the post Paris climate deal. Several million tonnes of carbon dioxide would be emitted each year from BTTP. Independent experts Dr. K. Babu Rao and K. Venkat Reddy also state that the EIA report does not have adequate information on the amount of greenhouse gases released from the proposed 1,080 MW project annually and the extent of mitigation of these gases by the proposed BTTP.

10. Financial Implications:

The general and overall push in Telangana for coal-based TPPs, such as BTTP, does not seem to factor in the larger scenario of power surplus and declining priority for thermal projects. Central Electricity Authority (CEA) has, in its National Electricity Plan (2017-2022), said the country does not need any more coal-based capacity addition till 2022. The BTTP infact could be a burden for the state exchequer with the huge costs, accompanied by usage of sub-critical technology.

⁵⁴ Arun, P.R., Azeez, P.A. & Maya, V. Mahajan (2004), Impact of Coal-fired thermal Power Plants on Agriculture: A case study of Chicku (Sapota) orchards of Dahanu, Maharashtra. Study Report accessible at https://www.academia.edu/278519/Impact_of_Coal-fired_Thermal_Power_Plants_on_Agriculture_A_case_study_of_Chicku_Sapota_orchards_of_Dahanu_Maharashtra

⁵⁵ E. Oksanen, V. Pandey, A.K. Pandey, S. Keski-Saari, S. Kontunen-Soppela, C. Sharma (March, 2013), Impacts of increasing ozone on Indian plants: NBRI, Lucknow; National Physical laboratory, Delhi and University of East Finland https://www.researchgate.net/publication/235880328_Impacts_of_increasing_ozone_on_Indian_plants

II. Errors in EIA Report:

A few examples of errors in the EIA Report, ignored by EAC and MoEF & CC are as follows:

Error 1: At Pg. C7-36 of EIA, it has been stated that “*Earthquakes in the recent past have occurred along and off the Telangana coast and in regions in the Godavari river valley. Mild tremors have also hit the capital city of Hyderabad, for example in September 2000.*” The above text has been copied from the website of the Dept. of Disaster Management website of Andhra Pradesh.

[<http://disastermanagement.ap.gov.in/historyofdisasters.aspx>] and the word “Andhra Pradesh” has been mechanically replaced with “Telangana”, ignoring a basic fact that Telangana is a land locked state and has no sea-coast. Notably, the EIA for KTPS Phase-VII prepared by Consultant Ramky Enviro also had the same error! This has not been critiqued by EAC & MoEF. This also points to the need for a more careful scrutiny of the Final EIA, at the level of EAC and MoEF.

Error 2: In response to Query 10 of the Note on Comments provided by Dr. Babu Rao and Dr. Venkat Reddy, the PP has stated that “*The proposed thermal plant will be operated in strict compliance / adherence to latest norms issued by MoEF & CC on 7th December, 2015*”. The said notification mandates that Particulate Matter (PM), Sulphur Dioxide (SO₂), Oxides of Nitrogen (NO_x) and Mercury (Hg) emissions should not be more than 30 mg/Nm³, 100 mg/Nm³, 100 mg/Nm³ and 0.003 mg/Nm³, respectively, for TPPs coming up after 1/1/2017. However in response to the Query 6⁵⁶, PP states that “*EIA Report was prepared based on the earlier MoEF Notifications / norms*”. Dr. K. Venkat Reddy states that “*These are contradictory. Even by the earlier norms applicable till the end of 2016, sulphur dioxide is 600 mg/Nm³ and NO_x is 300 mg/Nm³ for units less than 500 MW capacity*”. Apparently, this has been overlooked by EAC & MoEF.

Error 3: At Page CI0-I of the EIA Report, the PP states that “*The proposed power project will have marginal impacts on the local environment*”. At Page CI0-9, PP again states that “*The proposed project does not have significant pollution potential*”. These two statements in Chapter 10 of the EIA are unfortunate and indicative of the quality of the environmental impact assessment. This also proves how impacts are underplayed, with such statements by PP, going unchecked by the EAC.

Concluding Observations:

The above narration points to some very serious and fundamental concerns that have not been factored in adequately by the EAC-T, when it recommended that the BTTP must be granted environmental clearance by the MoEF and by the MoEF itself when it granted clearance based on EAC’s recommendation. The failure to ensure implementation of regulations by the monitoring and approving authorities can be summarized as follows:

⁵⁶ Response to Replies of Proponent, Document by Dr. K. Venkat Reddy, Scientist (Retd) – Query 6 states that the EIA is as per old norms, so how does the PP plan to comply with 7th Dec, 2015 norms of MoEF ?

1. EAC and MoEF & CC cleared the Project despite overwhelming evidence of violation of the EIA Notification, due to construction work initiated prior to the grant of EC. EAC should have noted that at the scoping stage itself, the proposed project has become completely vitiated and, therefore, further process of Environmental Clearance of the proposed project is also vitiated and cannot be permitted under the EIA Notification. The fact that no action has been taken against the PP for the said violation and infact the said violation was 'legalized', by grant of clearance points to a serious failure of the EAC and MoEF & CC itself.
2. EAC and MoEF cleared the Project without ensuring compliance of the NGT's order to take action on the concerned officials of TSGENCO for the unlawful construction. Likewise, PCB granted CTE without taking action against the PP for violation of Air and Water Acts. Clearly, there has been a dereliction of statutory duty by the MoEF & CC, EAC and PCB.
3. EAC recommended for clearance and MoEF granted clearance despite the fact that many serious aspects mentioned in the ToR have not been addressed at all or addressed inadequately in the Revised EIA Report – such as impact on agriculture, health impacts, cumulative impact assessment, hydrological impacts etc.
4. Differing or dissenting opinions of members of EAC, especially when they point to the possibility of environmental violations, must be considered in a proper and objective manner by the EAC and MoEF & CC. Infact, Clause 5(e) of EIA Notification, 2006 states that the EAC shall function on the principle of collective responsibility. The Chairperson shall endeavour to reach a consensus in each case, and if consensus cannot be reached, the view of the majority shall prevail. However, as noted from the 63rd EAC Meeting minutes, no such effort to arrive at a consensus was made when one of the members presented a dissenting opinion, with evidence, pointing to substantial construction, prior to EC.
5. Except for a brief translation of the executive summary, the full EIA Report was not translated into Telugu and provided to the local Panchayats, Gram Sabhas and affected people before or during the Public Hearing. Without being provided the entire document and its contents in an understandable manner, the people could not have had a holistic view of the Project's social, environmental, financial benefits, claims and implications. A significant number of deponents at the Public Hearing were political party representatives and a very few villagers spoke; virtually no women from the affected villages deposed before the Panel. The EAC and MoEF have not ensured that the PH process is held in a free, fair and fearless manner as per the letter and spirit of EIA, 2006.
6. A large number of other scientific objections and queries raised by Dr. Babu Rao Kalapala, Former Chief Scientist, IICT, Hyderabad; Dr. Venkat Reddy, Adv. Ch. Ravi Kumar, independent researchers associated with the EIA Resource Centre, New Delhi; Prasad Khale, environmentalist from Conservation Action Trust and Shri VS Krishna and Kanneboina Nageshwara Rao from Human Rights Forum from HRF & NAPM have not been answered satisfactorily or have been answered very vaguely without any substantive data, references, details by the PP. EAC had to ensure that these significant queries (which should have infact been posed by EAC) are fully answered by the PP, before further recommendations.
7. The claims of compliance with LARR, 2013, disbursement of compensation and R&R in the Public Hearing Report have not been verified by EAC or any other Committee / Authority, especially serious aspects such as conduct of SIA, R&R of assigned-land owners and landless persons etc. despite these issues having been raised in the public hearing by civil society activists orally and through detailed written submissions. EAC and MoEF could not and should not have ignored the serious aspect of total non-implementation of the mandatory Social Impact Assessment

provisions in the Land Acquisition and Rehabilitation Act, 2013, thereby denying R&R to a landless families and agrarian workers.

8. In spite of established illegalities and serious penal violations which have been committed by the Project Proponent, neither the TSPCB nor MoEF & CC have taken any action against it. In fact, far from taking action against the Project Proponent, the TSPCB had sought dismissal of the Application by HRF before NGT stating that the Project Proponent has not been carrying out any project works during the site visit conducted by its Engineer 21st May, 2016 i.e. after several months of beginning of project's illegal construction activity.
9. Despite it being established beyond doubt that the *status quo* order of the NGT was violated, the Tribunal did not take any action against the authorities of TSGENCO as per Sec 26 & 27 of the NGT Act, 2010. This is a clear case of NGT refusing to exercise its powers, particularly because the violator happens to be a public authority.
10. The EIA study manual of Thermal Power Plants has enshrined following principles which ought to be followed during the EIA process:

"A properly-conducted-EIA also lessens conflicts by promoting community participation, informing decision-makers, and also helps in laying the base for environmentally sound projects. An EIA should meet at least three core values:

- *Integrity: The EIA process should be fair, objective, unbiased and balanced*
- *Utility: EIA process should provide balanced, credible information for decision making*
- *Sustainability: The EIA process should result in environmental safeguards"*

EIA process, EIA Report and Public Hearing should be conducted in all fairness and in a manner which is independent and un-biased., But the PP awarded the EIA contract to the Consultant 2 months prior to the application for grant of ToR. Further, the PP collected baseline data for EIA Study during period in which MoEF & CC deferred grant of ToR. Neither the EAC and unfortunately, even the NGT did not recognize the seriousness of these violations. In Para 29 of its Order dt. 11th July, 2016, the NGT felt that these discrepancies, *"do not mean that the draft report prepared by Vimta Labs Ltd on 5th Feb, 2016 was not in accordance with the issues referred in ToR issued by MoEF & CC on 23rd June, 2015"*.

- II. The ambiguity of coal linkage for the project, the transportation route of coal not being worked out for the last 10 kms⁵⁷ and its impact has being studied, the fly ash disposal and transportation related impacts not being studied, the hydro-geological details not being provided and the hydro-geological impacts not being studied etc. make the EIA report incomplete. Thus, the statement of the Project Proponent that the (illegal) construction works were undertaken only after complete EIA studies is contrary to the facts on record.

Thus, the illegal construction, change in landscape, damage which has been caused to the environment and incomplete EIA study of the proposed project, itself were grounds as to why EAC could not have appraised the project in a meaningful and lawful manner. However, appraisal of the same and recommendation by the EAC and grant of EC by the MoEF & CC, despite evidence of violations defeats the letter and spirit of the EIA Notification, 2006.

⁵⁷ While EC (Para 5) states that coal transportation has to be done by rail only, there is no mention in the EIA of laying of additional railway line.

Chronology of Key Developments: Bhadradri Project

Date	Key Developments
13 th Nov, 2009	Ministry of Power (MoP) issues an Office Memorandum mandating only use of super-critical technology for all the Thermal Power Plants from the 13 th V-Year Plan
7 th Jan, 2015	Govt. of Telangana issues GO MS No. 3 for drawal of 1.4 TMC water per annum from Godavari river, situated 5 kms away from BTPP site
3 rd Feb, 2015	TSGENCO - Project Proponent (PP) submits proposal to the MoEF & CC for grant of Terms of Reference (ToR) for preparation of EIA for Bhadradri Thermal Power Project (BTPP) based on Sub-critical technology.
21 st March, 2015	Letter of Intent issued to BHEL by TSGENCO for Engineering Procurement and construction of 4 x 270 BTPP based on sub-critical technology.
23 rd – 24 th Feb, 2015	32nd meeting of EAC held wherein Application of PP for grant of ToR was considered and deferred, seeking more information and suggesting some changes to the Project.
March, 2015 to May, 2015	Baseline data was monitored and collected for EIA Study of the BTPS by Vimta Labs
19 th – 20 th May, 2015	36th meeting of EAC held wherein Application of PP for grant of ToR was re-considered and recommendation for grant of ToR was issued with certain recommendations, including one to switch over to super-critical technology.
23 rd June, 2015.	MoEF & CC grants ToR to Bhadradri Thermal Power Project for preparation of EIA and EMP.
Sep, 2015	Vimta Labs Ltd., a Hyd-based Consultant, which was entrusted the task of carrying out the EIA by TSGENCO, reportedly submits the EIA Report.
6 th and 30 th Oct, 2015	Members of Human Rights Forum (HRF), a public interest organization visit the project site and claim that work on BTPP has begun, without prior approval from the MoP for the usage of sub-critical technology and without prior public hearing, EAC's approval & Environmental Clearance from MoEF
Nov, 2015	HRF files an Application before the NGT challenging the legality of the construction of BTPP without necessary clearances and approvals from MoEF & CC, as required under EIA Notification, 2006 and Consent to Establish from TSPCB, as required under Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution), 1981.
12 th Dec, 2015	HRF's Application admitted by NGT and <i>interim status quo</i> order issued, restraining the PP from any further construction, until a valid EC is obtained.
4 th Jan, 2016	Project Proponent files Writ Petition (W.P. 513/2016) before the Hon'ble High Court of Telangana praying for vacation of the status-quo order of the NGT. The PP subsequently withdrew the said WP.
9 th Jan, 2016	Regional Office of MoEF, Chennai inspects the BTPP site in the presence of TSGENCO, BHEL & PCB officials.
11 th Jan, 2016	Site inspection report of Regional Office of MoEF submitted to MoEF & CC, New Delhi, reporting that the PP has been carrying on construction activities without clearance from MoEF and consent from PCB, thus violating the <i>status quo</i> Order as well.
14 th Feb, 2016	Regional Office, Kothagudem, TSPCB issues a paper notification in Telugu daily "Namasthe Telangana" and English Daily "The Hindu" regarding the

	proposed public hearing on 17 th March, 2016.
25 th Feb, 2016	MoEF submits an Affidavit before NGT confirming the Report of the Site Inspection Committee and assuring the Tribunal that its <i>status quo</i> Order would be implemented and no further construction would be permitted
26 th Feb, 2016	Ministry of Power grants permission for undertaking the project construction with sub-critical technology with a condition that construction be completed by 31 st March, 2017.
3 rd Feb, 2016	Draft EIA and EMP report submitted by the PP to the PCB.
17 th March, 2016	Public Hearing for the BTPP held by PCB and proceedings of the same forwarded to MoEF & CC on 29 th March, 2016.
7 th April, 2016	NGT directs MoEF not to proceed with appraisal of BTPS until further orders.
24 th May, 2016	An Environmental Engineer of PCB conducts an inspection and submits a report on the same day to the PCB, with an observation that no construction activity was being carried out by the PP, at the time of inspection.
11 th July, 2016	NGT passes a detailed Order continuing the <i>status quo</i> on the construction and directs EAC to take a decision on the Project, on merits, within 8 weeks. NGT also directs competent authorities to initiate penal action against officers of TSGENCO for violation of EIA Notification, 2006; Air Act and Water Act within 4 weeks.
27 th July, 2016	60th Meeting of EAC held wherein EAC constituted a Sub-Committee, as per directions of NGT to take a preliminary decision as to whether proper impact assessment is possible by virtue of the activities already carried out by the TSGENCO.
17 th – 19 th Aug, 2016	Sub-Committee constituted by EAC visits BTPP site to examine if the construction undertaken would hinder appraisal by EAC in any way.
29 th -30 th Aug, 2016	63rd Meeting of EAC held wherein Report of the Sub-Committee was considered.
27 th Dec, 2016	MoP grants further permission to Project Proponent for the usage of Sub-critical technology, extending the time limit for construction to 31 st Dec, 2017.
20 th Jan, 2017	2nd Re-constituted Meeting of EAC held wherein a recommendation for grant of Conditional Environment Clearance issued.
15 th March, 2017	MoEF & CC grants Conditional Environmental Clearance (EC) to the BTPP. for construction of a 1,080 MW plant (with 4 units of 270 MW capacity each).

7. Yadadri Thermal Power Plant

Socio-Environmental Governance Issues and Gaps



**Foundation Stone of the Yadadri Thermal Power Plant laid by the
Chief Minister of Telangana at Village Veerapalem**



Chapter 7: Yadadri Thermal Power Plant

Socio-Environmental Governance Issues and Gaps

Brief Background:

This Chapter is based on an appraisal of the issues around the 5 X 800 MW Yadadri Thermal Power Project (YTTP), under construction at Village Veerlapalem, Dameracharla Mandal, Dist. Nalgonda by the TSGENCO, Govt. of Telangana (Project Proponent). An attempt has been made here to broadly understand the environmental and social issues associated with this Project and in particular, the manner of regulatory governance by various monitoring authorities i.e. the MoEF & CC, EAC, FAC & PCB.

The study is based on a perusal of the Project Proposal, Final EIA Report of the Project submitted by the Project Proponent to the MoEF, correspondence between the PP and various authorities, submissions made by various stakeholders to the MoEF, Minutes of EAC and FAC meetings, clearance by MoEF, site visit reports, guidelines and notifications of MoEF, media reports, etc. The study was further informed by detailed interaction with civil society activists and independent experts who have been working on issues concerning the Project.

A field visit to the villages affected by the Yadadri TPP was also undertaken in July, 2017, to understand the concerns and issues from the ground. The villages visited include Talla Verappa Gudem (Goud and Dalit Hamlets) and Veerapalem (Modugula kunta Thanda, Dubba Thanda and Kapra Thanda). The visit was informed by extensive discussions with the villagers. A brief visit to the Tungapadu Vagu, the rivulet which is to be affected by the Plant was also made. Although we tried to visit the RDO, he was unavailable in office on that day. The study could, therefore, not obtain views of the PP and administrative authorities at this stage.

Project Summary:

The proposal regarding the Yadadri Thermal Power Project (YTTP) submitted by the TSGENCO to the MoEF & CC on 19th Sep, 2015 was considered by the EAC of MoEF in its 45th Meeting held on 29th – 30th Oct, 2015, 48th Meeting, held on 18th Dec, 2015, 50th Meeting held on 28th – 29th Jan, 2016. In its 63rd Meeting held on 29th-30th Aug, 2016 the EAC-T pointed out major shortcomings in the (initial) EIA Report prepared by the Consultant M/s Bhagavati Ana Labs Pvt. Ltd and charged the Consultant of indulging in plagiarism. EAC-T directed that the EIA Report and Public Hearing must be re-done, vide its Minutes of the 63rd Meeting dt. 31st Aug, 2016.

Thereafter, TSGENCO appointed M/s B.S. Envi Tech Pvt. Ltd as Consultant for preparing revised EIA Report. The PP wrote to the MoEF & CC seeking exemption from re-doing the Public Hearing. The Reconstituted EAC-T in its 1st Meeting dt. 28th Dec, 2016 granted exemption from a repeat Public hearing, based on the Revised EIA and PP was directed to only publicize the Revised EIA report in the newspapers for public notice and seeking comments. MoEF also permitted usage of previous baseline survey data for Revised EIA. Additional baseline data was collected during Oct, 2016, for validation.

Based on the Revised EIA, the EAC recommended grant of Environment Clearance in its meeting dt. 26th April, 2017. Upon consideration of the same, Conditional Environment Clearance (EC) was granted to YTPP (Phase-I) by MoEF & CC on 29th June, 2017, for construction of a 4,000 MW plant (with 5 units of 800 MW capacity each). The Phase-II of the Project is also planned, with an additional 2,800 MW capacity. The Project previously received a Conditional Forest Clearance (FC) from MoEF for diversion of 1,892.35 ha of forest land granted on 7th July, 2015.

Project Fact-File:

Sl. No.	Item	Details
I.	Name of the Project	Yadadri Thermal Power Project (YTTP)
2.	Location (Village, Tehsil, Dist)	Village Veerlapalem, Dameracharla Mandal, Dist. Nalgonda
3.	Capacity (total and unit-wise)	Composite project of 5 units of 800 MWs each, cumulatively being a 4,000 MW – TPP. ⁵⁸
4.	Project Proponent	M/s Telangana State Power Generation Corporation Ltd. (TSGENCO)
5.	Technology Type	Super Critical Coal based Thermal Power Plant
6.	EIA Consultant	BS Envi Tech (Pvt) Ltd. Sec-bad. (Earlier EIA done by M/s Bhagavati Ana Labs Pvt. Ltd was rejected)
7.	Project Schedule	Units 1 & 3 = 36 months from Zero Date. Units 2, 4, 5 = 48 months from Zero Date.
8.	Coal Composition & Source	50% Indian and 50% Indigenous Coal. MoUs signed with SCCL and MSTC for purchase of respective coal types .
9.	Water Source	River Krishna. While GoT has allotted 6.60 TMC water from the river, PP claims to use 3.10 TMC for the entire Project.
10.	Total Land Requirement	2,800 acres. Of this, 2095.28 acres is forest land under Veerapalem Forest Block and 704.12 acres is private patta land, Govt land, assigned land in Damarlacherla Mandal.
II.	Scale of Displacement	Total 2,503 families (Scheduled Castes – 109, Scheduled Tribes- 1622 and Others – 772) likely to be displaced (Forest Advisory Committee Minutes). An estimate by the Land Conflict Watch puts the likely number of affected persons at a whopping 12,014
12.	Status of Clearances	Conditional Forest Clearance (FC) for diversion of 1,892.35 ha of forest land granted by MoEF & CC on 7 th July, 2015 ⁵⁹ Conditional Environment Clearance (EC) granted by MoEF & CC on 29 th June, 2017

The Forest Clearance Process:

⁵⁸In its reply to the submission (Point 12) of Mr. N. Harinder of Human Rights Forum, the PP has stated that 4,000 MW plant would be established in the 1st Phase and an additional 2,800 MW Plant would be established subsequently. (Annex 7-B of YTTP Revised EIA Report, Jan' 2017) - [Annexures Available at]:

[http://tspcb.cgg.gov.in/publichearings/TSGENCO%20\(Yadadri%20TTP\),%20Nalgonda%20Dist%20-%20REVISED%20EIA%20REPORT%20\(Volume%20-%20III\).pdf](http://tspcb.cgg.gov.in/publichearings/TSGENCO%20(Yadadri%20TTP),%20Nalgonda%20Dist%20-%20REVISED%20EIA%20REPORT%20(Volume%20-%20III).pdf)

⁵⁹. TSGENCO sought diversion of 4334.01 ha of forest land vide Letter dated. 29th Jan, 2015

In the case of every Project where diversion of more than 5 hectares of forest-land is essential, a clearance from the Union Ministry of Environment and Forests, New Delhi is mandatory as per Section 2 of the Forest (Conservation) Act, 1980. Since a significant portion of the Yadadri TPP is in the forest area, the clearance was sought for and obtained from MoEF & CC, Delhi.

a. Submission of Proposal and FAC Recommendation:

The Govt. of Telangana submitted a proposal on 29th Jan, 2015 to the MoEF for diversion of 4334.01 ha acres of forest land for YTTP. The Director, MoEF sent this proposal to the Addl. Principal Chief Conservator of Forests, Chennai vide letter dt. 6th Feb, 2015 for undertaking an inspection of the said forest land. Thereafter, the said site was inspected on 15th Feb, 2015.

b. Stage – I: In-Principle Approval [27th Apr, 2015]

The said proposal was examined by the Forest Advisory Committee (FAC) of the Ministry under Sec 3 of the Act, 1980 in its Meeting dt. 17th March, 2015 and the FAC granted conditional recommendation for diversion of 1892.35 ha of forest land, after MoEF's approval. On the basis of the recommendation of the FAC, the MoEF accorded conditional in-principle (Stage-I) approval for 1892.35 ha of land on 27th Apr, 2015⁶⁰ for establishment of 4,400 MW capacity TPP at Veerlapalem and 2400 MW TPP at Dilawarpur Mandal of Damarcharla Mandal. The Ministry also directed that final clearance would be accorded only after a compliance report would be submitted to MoEF on all the 32 conditions stipulated.

c. Stage-II: Grant of Forest Clearance: [7th July, 2015]:

On the basis of the compliance report⁶¹ submitted by the State Government, vide letters dt. 21/5/2015 and 20/6/2015, MoEF accorded final clearance (Stage-II Approval) on 7th July, 2015⁶² for diversion of 1892.35 ha of land for establishment of 4,400 MW capacity TPP at Veerlapalem and 2,400 MW TPP at Dilawarpur Mandal of Damercharla Mandal. A perusal of the 'compliance report', which was furnished within a short span of a month after the in-principle approval, reveals that it is more a document in the nature of an "expression of intention" and only provides 'undertakings' by the project authority, without any substantial details, documents, agreements, financial allocations etc. as to how the numerous conditions stipulated would be complied with.

The Environment Clearance Process:

a. Submission of Proposal:

⁶⁰ Stage-I Approval Available at:

http://forestsclearance.nic.in/writereaddata/RO_App_Inprinciple/1806201518072015StageLetter.pdf

⁶¹ Compliance Report by TSGENCO Available at:

http://forestsclearance.nic.in/writereaddata/Compliancereport/122320151notesheet_004.pdf

⁶² Stage-II Approval Available at: http://forestsclearance.nic.in/writereaddata/RO_Approved/1223201518-07-2015-FC-Veerlapalem.pdf

TSGENCO submitted an online proposal to the MoEF & CC on 19th Sep, 2015, for granting ToR (as per EIA Notification, 2006) for establishment of the Yadadri Thermal Power Project (YTTP) near Dameracharla, Nalgonda Dist, with cumulative capacity of 4,000 MW. Soon thereafter, a public interest group called EIA Resource Centre wrote to the EAC-T on 28th Oct, 2015, conveying certain serious concerns on environmental and other issues of the YTTP. The representation stated that the project area is of considerable ecological significance since 75% of the area is under forest cover and tributary of Krishna River and other sub-streams pass through the project. The letter also stated that the Project would also consume as much as 6.6 TMC of Krishna River.

b. Appraisal of Ist EIA by EAC:

The said proposal of TSGENCO was considered by the EAC-T in its 45th Meeting⁶³ on 29th – 30th Oct, 2015 and before considering the matter further, EAC-T felt the need for a site visit especially with regard to tributary of Krishna River flowing through the proposed site. In the meanwhile, the online portal of MoEF & CC issued an auto-generated Standard ToR to the TSGENCO vide letter dt. 2nd Nov, 2015⁶⁴, based on the online proposal of TSGENCO. Thereafter, a Sub-Committee constituted by the EAC-T made a site visit to the proposed project area on 5th Dec, 2015.

Based on this site-visit report, the EAC-T considered the matter further in its 48th Meeting⁶⁵, held on 18th Dec, 2015 and directed TSGENCO to furnish replies to the concerns raised by EIA Resource Centre in their letter dt. 28th Oct, 2015. TSGENCO submitted its reply on 22nd Dec, 2015. EAC-T appraised the matter further in its 50th Meeting⁶⁶ held on 28th – 29th Jan, 2016. Thereafter, MoEF & CC issued Additional ToR to TSGENCO on 16th Feb, 2016⁶⁷. The Project Proponent appointed M/s Bhagavati Ana Labs Pvt. Ltd as the EIA Consultant. The baseline survey was conducted during the months of Dec, 2015 to Feb, 2016. Thereafter, Public Consultation / Hearing was called for by the Telangana PCB and held on 31/5/2016⁶⁸. EIA Report, incorporating the baseline survey, proceedings of the Public Hearing and other details was submitted by PP to MoEF & CC on 25th June, 2016⁶⁹. Thereafter, EAC-T

⁶³ EAC 45th Meet Minutes: [http://environmentclearance.nic.in/writereaddata/Form-1A/Minutes/0_0_111114123812131MoM45thEAC\(Thermal\)-noeastcoast.pdf](http://environmentclearance.nic.in/writereaddata/Form-1A/Minutes/0_0_111114123812131MoM45thEAC(Thermal)-noeastcoast.pdf) (Pg 12)

⁶⁴ Annex 1-A of YTTP Revised EIA Report, Jan' 2017 [Annexures of EIA Report of Yadadri TPP (Jan'2017)] Available at: [http://tspcb.cgg.gov.in/publichearings/TSGENCO%20\(Yadadri%20TPP\),%20Nalgonda%20Dist%20-%20REVISED%20EIA%20REPORT%20\(Volume%20-%20III\).pdf](http://tspcb.cgg.gov.in/publichearings/TSGENCO%20(Yadadri%20TPP),%20Nalgonda%20Dist%20-%20REVISED%20EIA%20REPORT%20(Volume%20-%20III).pdf)

⁶⁵ EAC 48th Meet Minutes: http://environmentclearance.nic.in/writereaddata/Form-1A/Minutes/0_0_121128123912111FinalMinutes48thMeeting.pdf (Pgs 1 - 2)

⁶⁶ EAC 50th Meet Minutes: http://environmentclearance.nic.in/writereaddata/Form-1A/Minutes/0_0_211912412191MoM50thEAC-ThermalPower.pdf (Pgs 15-22)

⁶⁷ Annex 1-B of YTTP Revised EIA Report, Jan' 2017 [Annexures of EIA Report of Yadadri TPP (Jan'2017)] Available at: [http://tspcb.cgg.gov.in/publichearings/TSGENCO%20\(Yadadri%20TPP\),%20Nalgonda%20Dist%20-%20REVISED%20EIA%20REPORT%20\(Volume%20-%20III\).pdf](http://tspcb.cgg.gov.in/publichearings/TSGENCO%20(Yadadri%20TPP),%20Nalgonda%20Dist%20-%20REVISED%20EIA%20REPORT%20(Volume%20-%20III).pdf)

⁶⁸ Public Hearing Report available at: [http://tspcb.cgg.gov.in/publichearings/TSGENCO%20\(Yadadri\),%20Nalgonda%20Dist%20-%20MIN.pdf](http://tspcb.cgg.gov.in/publichearings/TSGENCO%20(Yadadri),%20Nalgonda%20Dist%20-%20MIN.pdf)

⁶⁹ Final EIA Report of Yadadri TPP (Jan'2017) Available at: [http://tspcb.cgg.gov.in/publichearings/TSGENCO%20\(Yadadri%20TPP\),%20Nalgonda%20Dist%20-%20REVISED%20EIA%20REPORT%20\(Volume%20-%20II\).pdf](http://tspcb.cgg.gov.in/publichearings/TSGENCO%20(Yadadri%20TPP),%20Nalgonda%20Dist%20-%20REVISED%20EIA%20REPORT%20(Volume%20-%20II).pdf)

considered the proposal with EIA Report in its 63rd Meeting held on 29th-30th Aug, 2016⁷⁰ for grant of EC. The EAC-T pointed out major shortcomings in the EIA Report and EMP and charged the Consultant of indulging in plagiarism. EAC-T directed that the EIA Report and Public Hearing must be redone, vide its Minutes of the 63rd Meeting dt. 31st Aug, 2016.

c. Appraisal by EAC of Revised EIA & Recommendation for Clearance:

Thereafter, TSGENCO appointed M/s B.S. Envi Tech Pvt. Ltd., Sec-bad as Consultant for preparing revised EIA Report⁷¹. The Report includes various details and claims regarding mitigation of environmental impacts due to the YTPP as well as compensation & rehabilitation of the affected people, as per LARR Act, 2013. It also states that the PP shall develop green belt over 1,352 acres of the total project land including restoration of 1049 acres of forest land and 303 acres of greenbelt in non-forest area.

The PP wrote to the MoEF & CC seeking exemption from re-doing the Public Hearing. The Reconstituted EAC-T in its 1st Meeting dt. 28th Dec, 2016⁷² granted exemption from a repeat Public hearing, based on the Revised EIA and PP was directed to only publicize the Revised EIA report in the newspapers for public notice and seeking comments. MoEF also permitted usage of previous baseline survey data for Revised EIA. Additional baseline data was collected during Oct, 2016, for validation.

Thereafter, in the 5th Meeting⁷³ of the Reconstituted EAC dated 26th April, 2017, a recommendation was issued to the MoEF & CC to grant environmental clearance to the Project. Upon consideration of the same, the Ministry granted conditional environmental clearance on 29th June, 2017⁷⁴.

Key Socio-Environmental and Regulatory Governance Concerns:

Environmental Aspects:

- I. The Project is likely to have inter-state implications since the project site at Veerapalem, Damarcharla, is situated very close to the Andhra border. The EC acknowledges that the Project is located at a distance of 0.8 kms South-East from the Inter-State boundary of Telangana-Andhra Pradesh. Studies have established that TPPs could have environmental impacts upto 10 kms radius. Thus, the villages in the Gurazala Mandal of Guntur (AP) are likely to face environmental impacts of YTPP. However, the residents of AP have not been consulted or heard in the entire EIA and hearing process. Both EAC and MoEF have overlooked this crucial aspect.

⁷⁰ EAC 63rd Meet Minutes: <http://environmentclearance.nic.in/writereaddata/Form-1A/Minutes/12092016615HIB3SMoM63rdEAC.pdf> (Pgs 13-18)

⁷¹ Interestingly, until recently, the official website of the M/s B.S. Envi Tech Pvt. Ltd, listed M/s Bhagavati Ana Labs Pvt. Ltd as one of its associates at the link http://www.bsenvitech.com/asso.php?PAGE_ID=24. However the said link is presently unavailable.

⁷² Minutes of 1st Meet of Reconstituted EAC: <http://environmentclearance.nic.in/writereaddata/Form-1A/Minutes/10012017IWRYEZHCFinalMinutesofMeeting1stEAC28thDec2016.pdf> (Pgs 14-20)

⁷³ Minutes of 5th Meet of Reconstituted EAC: <http://environmentclearance.nic.in/writereaddata/Form-1A/Minutes/1505201728Q8Q8Q8Finalapproved5thEACminutes26thApril17.pdf> (Pgs 1-6)

⁷⁴ Environmental Clearance dt. 29th June, 2017 to YTPP: <http://environmentclearance.nic.in/writereaddata/Form-1A/EC/062920171risk.pdf>

This is violative of the spirit of Clause 2.I of the Procedure for Conduct of Public Hearing⁷⁵ of the EIA Notification, which stipulates that “*In case the project site is extending beyond a State or Union Territory, the public hearing is mandated in each State or Union Territory in which the project is sited and the Applicant shall make separate requests to each concerned SPCB or UTPCC for holding the public hearing as per this procedure*”.

It may be noted that in the case of inter-state Indira Sagar (Polavaram) Multipurpose Project, it was mandated that Public hearing must be held in all the affected states of Chhattisgarh, Orissa and AP. There is, therefore, no reason or justification for circumvention in the present case. Besides, in the case of public hearings for any project, the actual project-impact area needs to be considered and not the ‘project-site’ and to that extent the aforesaid clause 2.I also needs to be clarified and re-worded appropriately to ensure that project-authorities do not get away with the statutory obligation of conducting a public hearing, at all places where project impacts are likely.

2. As has also been expressed by some deponents during the public hearing (of the Ist EIA Report), there has not been enough application of mind at the time of site-selection, for deciding the location of this project. YTTP is not a pit-head project (where coal is available at project-site) and, therefore, transportation of coal – domestic and imported would be a major expense-head and also lead to considerable environmental pollution due to long-distance transportation. The EC states that a) TSGENCO and SCCL have signed agreement for supply of 7 MTPA indigenous coal of Grade 9 and above quality b) TSGNCO and MSTC Ltd. have signed an agreement for supply of 7 MTPA of imported coal that shall reach India (from Indonesia / Australia / South Africa) through the Kakinada / Vishakapatnam / Krishnapatnam port and from there to the project site via Vishnupuram Railway station. EIA does not provide adequate details of pollution due to coal transportation over the distance of 8 kms between the Vishnupuram Railway station and project site and measures for mitigation of the same.
3. The inconsistency in some key figures in the EIA Report is quite notable. The total project water requirement is stated to be 10,000 m³/hr i.e. 2,40,000 m³ per day. [Sec 2.5.3 at Pg. 22 of Revised EIA Report]. However, FGD requirement for YTPS is stated as 12,408 m³/hr [Fig 4.18 at Page 250 of Revised EIA Report]. This is simply impossible since the FGD requirement cannot, under any circumstances, exceed the total water requirement of the Plant. While it is likely that this could be a misprint (since FGD requirement is shown as 14,880 m³/day at Pg 248 of the same report), such glaring errors point to the superficial manner in which the editing of the Final Report has been done.
4. The Project Proponent states that the water requirement of the flue gas desulphurisation unit is estimated at 14,880 m³/day. The Proponent claims that, of the total consumption, the evaporation loss in FGD with flue gas is 13,440 m³/day and thus the wastewater generation is 1,440 m³/day. [Pg 248 of EIA Report]. In their list of queries to the PP, during the Public Hearing, environmental activists state that these figures “*represent a projected evaporation loss of over 90%. Such a high rate is inconsistent with U.S. FGD systems, where the evaporation loss is approximately 60-70%*”.

⁷⁵ Page 37 (Appendix IV) of EIA Notification, 2006 available at <http://envfor.nic.in/legis/eia/so1533.pdf>

5. Revised EIA Report only looks at the availability of water for the Project from river Krishna, but is silent on the adverse impacts of withdrawal of 6.6. TMC of Krishna water on the ecological flows of the river and the disturbance this would cause to the aquatic life and vegetation, especially in the downstream. The Report does not mention the minimum ecological flow in the region required in the river. Nor does the report study the impacts in the region due to reduced water flow in Krishna and her tributaries.
6. The EIA does not go into the issue of impact of YTPP on agriculture in the region, by which a large number of farmers are likely to be affected. This is a key component of the local environment. Impact on Agriculture is likely in two distinct ways:
 - a. Firstly, due to weaning away of river water irrigating the farm lands. As mentioned in the EIA, water requirement for the Plant is 10,000 m³/hr. At this rate, it is estimated by independent expert Dr. Babu Rao, in his critique to the EAC that the water consumption by the Plant in a year would disable irrigation of 61,050 acres⁷⁶ of paddy land. Such a major impact on agriculture is not mentioned in the EIA Report.
 - b. Secondly, there is no mention of the sizeable crop-losses likely due to ground level Ozone (O₃), as has been documented in many studies world over. The National Crop Loss Assessment Network (NCLAN), United States published a number of reports and scientific publications quantifying the loss based on Ozone concentration prevalent. A study⁷⁷ carried out in 2004 in the Sapota orchards of Dahanu region of Maharashtra concluded that the high pollution due to the Dahanu TPP has a clear adverse impact on crop productivity in the region. Likewise, a joint publication of NBRI, Lucknow; National Physical laboratory, Delhi and University of East Finland on “Impacts of increasing ozone on Indian plants”⁷⁸ concluded that “Current information about measurements of precursor formation and ozone concentrations over Indian region, modeling efforts and satellite observations indicate that plant production is vulnerable to high ozone levels...” Notably, the PP has neither denied externalities like crop losses nor admitted crop losses and proposed a mechanism for mitigation and compensation.
7. The issue of Occupational health has not been dealt with sufficiently in the EIA, except for a brief reference to Occupational Hazards, the proposed Occupational Health Survey⁷⁹ and

⁷⁶ In its Submission, Queries and Comments on Revised YTPS EIA to the EAC(T), Dr. K. Babu Rao estimates that “Water requirement for the power plant is 10000 m³/hr i.e. 240,000 m³/day. With that water 2,40,000/1300 = about 185 acres of land will produce irrigated paddy crop in a season. For 330 operating days in a year, the land deprived of irrigation water = 330 x 185 = 61,050 acres per year”.

⁷⁷ Arun, P.R., Azeez, P.A. & Maya, V. Mahajan (2004), Impact of Coal-fired thermal Power Plants on Agriculture: A case study of Chicku (Sapota) orchards of Dahanu, Maharashtra. Study Report accessible at https://www.academia.edu/278519/Impact_of_Coal-fired_Thermal_Power_Plants_on_Agriculture_A_case_study_of_Chicku_Sapota_orchards_of_Dahanu_Maharashtra

⁷⁸ E. Oksanen, V. Pandey, A.K. Pandey, S. Keski-Saari, S. Kontunen-Soppela, C. Sharma (March, 2013), Impacts of increasing ozone on Indian plants: NBRI, Lucknow; National Physical laboratory, Delhi and University of East Finland https://www.researchgate.net/publication/235880328_Impacts_of_increasing_ozone_on_Indian_plants

⁷⁹ Sec 4.4.4 (Pages 297-298) of the EIA Report.

related measures to be undertaken. Of all ailments, the EIA Report only refers to “awareness of HIV/ AIDS for power plant personnel and nearby villages, which clearly is not the most likely ailment due to thermal power plants⁸⁰. The Hon’ble Supreme Court in its judgement dt. 31st Jan, 2014⁸¹ took serious cognizance of the issue of occupational health and safety of workers in thermal plant areas and directed the High Courts to monitor the same. The following excerpts from the judgment are relevant:

10. Right to health i.e. right to live in a clean, hygienic and safe environment is a right flowing from Article 21. Clean surroundings lead to healthy body and healthy mind. But, unfortunately, for eking a livelihood and for national interest, many employees work in dangerous, risky and unhygienic environment. Right to live with human dignity enshrined in Article 21 derives its life breath from the Directive Principles of State Policy, particularly clauses (e) and (f) of Articles 39, 41 and 42. Those Articles include protection of health and strength of workers and just and humane conditions of work. Those are minimum requirements which must exist to enable a person to live with human dignity. Every State has an obligation and duty to provide at least the minimum condition ensuring human dignity. But when workers are engaged in such hazardous and risky jobs, then the responsibility and duty on the State is double-fold. Occupational health and safety issues of CFTPPs are associated with thermal discharge, air and coal emission, fire hazards, explosion hazards etc. Dust emanates also contain free silica associated with silicosis, arsenic leading to skin and lung cancer, coal dust leading to black lung and the potential harmful substances. Necessity for constant supervision and to the drive to mitigate the harmful effects on the workers is of extreme importance.

17. We notice that CFTPPs are spread over various States in the country like Uttar Pradesh, Chhattisgarh, Maharashtra, Andhra Pradesh, and so on, and it would not be practicable for this Court to examine whether CFTPPs are complying with safety standards and the rules and regulations relating to the health of the employees working in various CFTPPs throughout the country. We feel that these aspects could be better examined by the respective High Courts in whose jurisdiction these power plants are situated. The High Court should examine whether there is adequate and effective health delivery system in place and whether there is any evaluation of occupational health status of the workers. The High Court should also examine whether any effective medical treatment is meted out to them.

19. Report of National Institute of Occupational Health (NIOH) titled Environment, Health and Safety Issues in Coal Fired Thermal Power Plants of the year 2011 may also be made available by the Secretary General of the Supreme Court to the Registrar Generals of the High Courts of the aforesaid States. We make it clear that the Report is not at all comprehensive in certain aspects and the respective High Courts can examine the issues projected in this Judgment independently after calling for the reports about the CFTPPs functioning in their respective States. The Registrar Generals of High Courts of the aforesaid States should place this Judgment before the Chief Justices of the respective States so as to initiate suo moto proceedings in the larger interest of the workers working in CFTPPs in the respective States.

8. The Report makes no mention of the likely health impacts by YTTP on the population in the plant vicinity, especially respiratory ailments such as pneumoniasis and asbestosis due to dust, heat, noise, vibration, radiation and waste disposal as well as measures to mitigate the same.

⁸⁰ Sec 7.4.2.2 (Pg. 401) of the EIA Report.

⁸¹ Judgement dt. 31st Jan, 2014 in WP No. 79/2005 in Occupational Health and Safety Association versus Union of India and Others – available at <http://court.nic.in/supremecourt/temp/wc%207905p.txt>

Numerous studies across the world have provided over whelming evidence of adverse health impacts due to coal-fired thermal power plants. The cumulative capacity of the YTPP is 6,800 MW, which would have a much greater likelihood and radius of impact on the health of local population.

9. Standard ToR No. 42 requires that “Radioactivity and heavy metal contents of coal to be sourced shall be examined and submitted along with laboratory reports.” Interestingly, Radioactivity test certificate of BARC dt. 18th Sep, 2015 issued for Bhadradri TPP has been used for YTPP. (Ref: PDF Pg. 61 of EIA Report). Dr. K. Babu Rao states⁸² that this is a case of clear falsification and deception. He also submits that two neighbouring plants of TSGENCO (near YTPP) for which coal is to be sourced from SCCL mines have substantial variation in heavy metal content. (Point 23, Pg 12 of Critique) Thus, the credibility of analysis presented is questionable based on data presented in other EIA reports for SCCL coal.
 10. Despite there being around 22 cement industries within 15 kms radius of the proposed Plant, no cumulative impact assessment study, with baseline data of 3 seasons has been conducted and a blanket claim has been made by the PP that such an assessment has been done. The Rapid EIA, with only one season baseline data would not give an effective and comprehensive view of the additional impact of the Project, in an area already having multiple industries. In the same submission referred to above, Dr. K. Babu Rao also estimates that about 3312.96 kg mercury is likely to be released every year. There is no mention of this in the EIA Report or no plan to mitigate the impact caused by this.
 - II. The present case also brings out a clear violation of Standard ToR 20 & 21 for TPPs, with regard to water bodies within / nearby plant area:
 - a. Violation of ToR 20 which clearly states that “water body/Nallah (if any) passing across the site should not be disturbed as far as possible.” As admitted⁸³ by the Project Proponent, 3.90 kms of the Tungapadu Vagu (stream) passes through the project site. The stream has a catchment area of 694 sq kms. ToR. In his critique⁸⁴ Prof. K. Babu Rao states that “*Tungapadu vagu and its feeding channels pass through the site chosen for the power plant. Once the site is developed for construction all these natural channels will be leveled and eliminated. That is an ecological damage not considered in the EIA or the subcommittee visit report. Ash pond also is located over drain channels and disrupts natural drainage*”. It is generally seen that the terms ‘as far as possible’ are used by PPs to circumvent the ToR.
 - b. Violation of ToR 21 which clearly states that “...a minimum of 500 mts distance of plant boundary is kept from the HFL of river system / streams etc. and the boundary of site should also be located 500 m away from railway track and national highways”
- The EAC (T) in its 50th Meet held on 28th – 29th Jan, 2016 directed amongst other things that:

⁸² Submission by Dr. K. Babu Rao, Retired Scientist (IICT, Hyd), Queries and Comments on Revised YTPS EIA to the EAC(T).

⁸³ Annexure 1F of Yadadri EIA Report, Jan, 2017.

⁸⁴ Queries and Comments on Revised YTPS EIA, by Dr. K. Babu Rao, Chief Scientist (Retd), IICT, Hyd

- i) *The Tungapadu Vagu should not be diverted, but it should be preserved, protected and its flows enhanced.*
- ii) *The PP should leave a minimum of 100 m buffer on either side of its banks and this buffer should be developed into native forest.*

This direction of EAC (ii) must be viewed in the light of the aforementioned ToR 2I. EAC's direction, based on the view of its Sub-Committee (of leaving a minimum of 100 m buffer) which visited the area in Dec'15 is in violation of the stipulation in the ToR. How could the Sub-Committee take such a view, in violation of Standard ToR and how could the EAC in turn accept the same, remains unanswered

12. There is no mention in the EIA of the impact of the Project and burning of coal on micro climate. Going by the PP's claim, 2,000 MW (out of 4,000 MW – Phase I) would be run by indigenous coal, which would increase the burden of carbon emissions. A Project with 6,800 MW cumulative capacity is to certainly have significant emissions affecting the climate.
13. As has been mentioned above, of the entire project area, of 2,800 acres, a land admeasuring 2095.28 acres is forest land under Veerapalem Forest Block of Damarlacherla Mandal in Nalgonda District. The Project Proponent has not fully satisfied the EAC nor has the EAC and MoEF & CC adequately satisfied itself that the said (forest land) site is the demonstrable last resort for establishing the project. In this context the observations of the Hon'ble Supreme Court in N. Godavarman Thirumulpad Vs. Union of India & Ors, 2006 (1) SCC 1 are very relevant:

“Undoubtedly, in any nation development is also necessary but it has to be consistent with the protection of the environment and not at the cost of degradation of the environment. Any programme, policy or vision for overall development has to evolve a systemic approach so as to balance economic development and environmental protection. Both have to go hand in hand. In the ultimate analysis, economic development at the cost of degradation of the environment and depletion of forest cover would not be long lasting. Such development would be counter-productive. Therefore, there is an absolute need to take all precautionary measures when forest lands are sought to be directed for non-forest use.”

14. Ash pond is located over drain channels and disrupts natural drainage. There are no details in the EIA Report as to what are measures proposed to mitigate the hydrological impacts.

Thus, EAC's recommendation for clearance and MoEF's grant of clearance despite the fact that many serious aspects mentioned in the ToR such as impact on agriculture, health impacts, cumulative impact assessment, impacts on aquatic life and river ecological flows etc have not been addressed at all or addressed inadequately in the Revised EIA Report is a matter of grave concern.

Social Impacts and R&R:

1. The manner in which the issue of land acquisition as well as resettlement and rehabilitation of the project affected persons has been dealt with (or rather not dealt with) in the EIA Report speaks volumes about the fact that R&R is clearly not a priority, not even a matter of due concern for the project proponent. It has been claimed in the Revised EIA Report⁸⁵ that in all only 173 families residing in Modugulakunta Tanda and Kapura Tanda would be displaced by the Project. In the very next section, it is claimed that 413 families would be affected due to acquisition of 704.12 acres of private and assigned land. The Report also refers to 86 pending cases, where land title / possession is disputed. However, in wide contrast to this, the FAC, based on the Project Proponent's Proposal recorded in its Minutes dt. 17/3/2015⁸⁶ as follows:

“(xiv) Total 2,503 families (Scheduled Castes – 109, Scheduled Tribes- 1622 and Others – 772) are likely to be displaced due to establishment of the project”

Thus, there appears to be an admitted lack of clarity and finality on the total number of PAFs. An estimate by the Land Conflict Watch⁸⁷ puts the likely number of affected persons at a whopping 12,014. Many of the families who were 'left out' were landless, who were not even counted in any government survey (Social Impact Assessment as per LARR, 2013) nor extended any rehabilitation benefits. Notably, the aforementioned Minutes of the FAC dt. 17/3/2015 also took on record the Project Proponent's claim that YTPP would create direct employment for 6,000 to 8,000 persons and indirect employment for over a lakh persons⁸⁸. There are no other details and breakup of the nature of employment /jobs that would be provided to each person and the total number of jobs per category.

2. During the Public Hearing on 31/5/16, the PP merely mentioned that 285.81 crores has been deposited with the Collector towards payment of compensation for acquiring 854.32 guntas of patta land and 920.25 gunta of RoFR land (land for which pattas were given under FRA, 2006). In the same hearing, the Collector stated that 80% compensation has been disbursed and only 20% with respect to 'encroachments' remains, which would be completed soon. Besides the district administration has sent proposal to the state government for enhancement of compensation of certain categories. The MP and MLA also stated in the hearing that 650-740 acres of assigned lands that would be affected also need to be compensated for.
3. It may be noted that there is no mention or clear undertaking that the entire procedure prescribed in the Land Acquisition and Rehabilitation Act, 2013 has been followed during the process of acquisition of land, disbursement of compensation and rehabilitation of the PAFs. It is evident from the EIA that the Social Impact Assessment as prescribed and mandated by the 2013 Act has not been conducted. The same conclusion has been arrived at upon a field visit to the affected villages on 1st and 2nd July, 2017.
4. Thus, in addition to land-owners, who are categorized as land-losers, it appears that no effort has been made to identify and rehabilitate those persons who do not own land, but are dependent on the land for their livelihood (landless persons) or other oustees residing in / eking out a living in the project area. It was precisely for these reasons that conducting a

⁸⁵ Pg 441, Chapter 7.4.1.1 of EIA Report of YTPP

⁸⁶ Point xiv (Pg 15), Agenda No. 3 of FAC Meeting Minutes dt. 17/3/2015

http://forestsclearance.nic.in/writereaddata/FAC_Minutes/41110121012181FACMinutesMarch2015.pdf

⁸⁷ <https://landconflictwatch.org/research/yadadri-thermal-power-plant>

⁸⁸ Point xi (Pg 15), Agenda No. 3 of FAC Meeting Minutes dt. 17/3/2015

comprehensive SIA was necessary. Non-implementation of the mandatory Social Impact Assessment provisions in the LARR Act, 2013, has led to denial of R&R to a large number of landless families, agrarian workers and forest cultivators.

5. The Conditional Forest Clearance (FC) for diversion of 1,892.35 ha of forest land granted by MoEF & CC on 7th July, 2015 makes no mention of the status of settlement of the rights of persons depending on the said forest land as per the Forest Rights Act, 2006. The Minutes of the FAC meeting dt. 17/3/2015 took on record a 'Certificate' by the Dist. Collector that forest rights as per FRA, 2006 have been 'settled' and did not verify it any further. It has been learnt from the field visit that full settlement of rights and *in situ* rehabilitation of all the adivasis and other traditional forest dwellers has not been ensured as per the Forest Rights Act, 2006, despite a major portion of the project land being forest area.

In its judgement in Jeet Singh Kanwar⁸⁹, highlighting the importance of R&R, the NGT held that, “

We are of the opinion, therefore, that the conditions including condition to obtain FC are stated in a routine course. Indeed, it was necessary for the EAC /MoEF to verify the R&R Plan, action plan for CSR activities, the responses of the Project Proponent to the issues raised in the public hearing and to examine the relevant materials before granting the EC. We find that such exercise is skirted by the MoEF. (Para 22, Page 20)

We have minutely perused the relevant record. It appears that the EAC did not conduct “detailed scrutiny” nor gave adequate reasons as to how the objections raised by the members of public were addressed by the Project Proponent and that the stand of the Project Proponent was found acceptable. On this ground also, we are inclined to hold that the impugned order of EC is arbitrarily issued and therefore it is unsustainable. (Para 22, Page 23)

If a proper SIA had been done, the eligible and affected persons could have been identified and entitlements extended as per the LARR, 2013 and FRA Act, 2006. Presently, only a few of these persons have been considered as project-affected and have been given some cash compensation, but full settlement of the individual and collective forest rights as per the FRA Act, especially allotment of pattas to non-tribal traditional forest dwellers and even many adivasi forest cultivators has not happened as per the 2006 Act. This is a clear violation of the provisions of the Forest Rights Act, 2006. The Forest Clearance granted by the MoEF & CC without a clear verification of the claim of the district administration of settlement of the forest rights under FRA, 2006 before land acquisition, is thus legally questionable.

6. The claims of compliance with FRA, 2006 and LARR, 2013, disbursement of compensation and R&R in the Public Hearing Report have not been verified by EAC, FAC or any other Committee / Authority, especially serious aspects such as conduct of SIA, R&R of assigned-land owners and landless persons, settlement of forest rights as per FRA, 2006 etc, despite these issues having been raised in the public hearing by civil society activists orally and through detailed written submissions. EAC and MoEF could not and should not have ignored the serious aspect of total non-implementation of the mandatory Social Impact Assessment provisions in the Land Acquisition and Rehabilitation Act, 2013, thereby denying R&R to a

⁸⁹ Judgement of the NGT dt. 16th Apr, 2013 in Appeal No. 10/2011 (T) in Jeet Singh Kanwar and Ors versus Union of India & Ors.

large number of landless families, agrarian workers and forest cultivators.

A detailed note on the R&R issues of YTPP, based on a field visit to the affected villages is at the end of this chapter.

Other Regulatory Gaps and Concerns:

- I. While the EAC-T charged the former consultant M/s Bhagavati Ana Labs Pvt. Ltd (BALPL) of plagiarism, rejected the EIA prepared by it for YTPP, and in its Meeting of 28th Dec, 2016, EAC noted that, “*Ministry has written to NABET to initiate necessary action against the M/s Bhagavathi Ana Labs Pvt. Ltd and inform the same in light of plagiarism/copy-paste approach in preparation of EIA/EMP*”, (Point 2.7.3 at Pg 20) it appears that no action for delisting the BALPL from NABET’s⁹⁰ roll of Accredited Consultants has been taken, to this date. This is evident from the fact that M/s Bhagavati Ana Labs Pvt. Ltd continues to remain on the NABET’s roll of Accredited Consultants, even as on 21st Feb, 2018⁹¹. That a Consultant discredited by EAC for plagiarism continues to remain on the rolls of NABET, despite MoEF’s directions to take action, points not only to weak compliance of MoEF’s directions, but also lack of follow-up by MoEF itself of its directives.
2. The Reconstituted EAC-T in its 1st Meeting dt. 28th Dec, 2016 granted exemption from a repeat Public hearing, based on the Revised EIA and PP was directed to only publicize the Revised EIA report in the newspapers for public notice and seek comments. MoEF also permitted usage of previous baseline survey data for Revised EIA. It is beyond comprehension as to how EAC & MoEF permitted PP to use the baseline data and Public Hearing Report based on the Rejected EIA of the Consultant charged with Plagiarism, when such a recommendation / direction is in absolute violation of the MoEF Circular No. J-I1013/41/2006-IA.II (I) dt. 5th Oct, 2011, which states, amongst other things as follows:

“3. In view of the above, it has been decided that henceforth, the project proponent shall submit an undertaking as part of the EIA Report, owning the contents (information and data) of the EIA Report. If at any stage, it is observed or brought to the notice of this Ministry that the contents of the EIA Report pertaining to a project have been copied from other EIA Reports, such projects shall be summarily rejected and the proponent will have to initiate the process afresh including conduct of public hearing. In case of those projects where decision has already been taken, and environment clearance granted based on copied EIA report, the environment clearance granted would be withdrawn and the procedure for obtaining environmental clearance will be initiated de novo. Besides these actions, separate actions will be initiated to delist such consultants from the list of accredited consultants”.

The aforesaid Notification dt. 5/10/2011 of MoEF, which mandates re-doing of entire EIA process including public hearing has been very conveniently ignored by EAC and MoEF. Such an approach by MoEF sets a very wrong precedent and is violative of the spirit of the EIA Notification, 2006 and people’s right of being heard. EAC & MoEF must have ensured fresh studies and fresh public hearing based on the Revised EIA Report. The clearance of MoEF

⁹⁰ http://nabet.qci.org.in/environment/Accreditation_EIA_Consultant_organizations.pdf

⁹¹ <http://nabet.qci.org.in/Environment/pop.asp?file=documents/Annexure7.pdf> (Last accessed on 21st Feb, 2018)

itself is legally untenable in the light of MoEF's Circular dt. 5/10/2011. It is likely that for such reasons, the CAG in its Report of 2016 recommended that "*MoEF & CC may evaluate the entire process of EIA by involving all stakeholders, following legal processes and make suitable amendments in EIA Notification 2006 rather than resorting to Office Memorandums*"⁹²

3. Even in the case of the Public Hearing based on the Rejected EIA Report, except for a brief translation of the executive summary, the full EIA Report was not translated into Telugu and provided to the local Panchayats, Gram Sabhas and affected people. Without being provided the entire document and its contents in an understandable manner, the people could not have had a holistic view of the Project's social, environmental, financial benefits, claims and implications. A significant number of deponents at the Public Hearing were political party representatives and a very few villagers spoke; virtually no women deposed before the Panel. The EAC and MoEF have not ensured that the Public Hearing process is held as per the letter and spirit of EIA, 2006.
4. Although the present study has dwelt largely on the socio-environmental governance aspects, it would be relevant here to briefly refer to concerns of many experts that the push in Telangana for coal-based TPPs does not seem to factor in the larger scenario of power surplus and declining priority for thermal projects. Central Electricity Authority (CEA) has, in its National Electricity Plan (2017-2022), said the country does not need any more coal-based capacity addition till 2022. While the per unit cost of power generated from YTPP is likely to be Rs. 5, the same is available at Rs. 3.50 – Rs. 4 per unit in many north Indian states.

K. Raghu, in his book estimates that power from northern states can be available to Telangana in a span of 2 years by which time the transmission and distribution lines would be laid. Yadadri would also take about 3 years for completion. Besides, the price of renewables (solar) is falling rapidly, upto even less than Rs. 3 per unit. It is quite likely that the project could become a financial burden within its lifetime. Post-completion, Yadadri has potential to generate 3,000 crore units of power per year. Factoring the increased cost/burden of a rupee per unit, this would directly imply Rs. 3,000 crores additional burden on the state exchequer and the people, states K. Raghu, a well-known analyst on electricity issues in the state in his recent book⁹³!

A 2011 study⁹⁴ by the Prayas Energy Group indicated that while the national installed thermal capacity was 1,13,000 MW, proposed additions were more than six times this capacity and more than three times the capacity required to meet the needs of the high renewables-high efficiency scenario for year 2032 projected by the Planning Commission's

⁹² The Comptroller and Auditor General (CAG) submitted a Report on *Performance Audit on 'Environmental Clearance and Post Clearance Monitoring'* to the Parliament in March, 2017. Based on a comprehensive assessment of the EC and post-EC regime and situation across states, the Report, sought to examine whether the process of grant of Environmental Clearance is carried out in a timely and transparent manner and compliance of EC conditions ensured by the concerned authorities as well as through proper monitoring by the regulatory / supervisory bodies. [See Annexure]

⁹³ Raghu K (2016) *Telangana Vidyut Rangam lo em Jarugutundi* (What is happening in Power Sector of Telangana), Telangana Joint Action Committee, Hyderabad.

⁹⁴ Dharmadhikari S and Dixit S (August, 2011), Discussion Paper on Thermal Power Plants on the Anvil: Implications and need for rationalization, Prayas Energy Group, Pune.

<http://www.prayasgroup.org/peg/publications/item/164-thermal-power-plants-on-the-anvil-implications-and-need-for-rationalisation.html>

5. Raghu also states *interalia* that there is a clear dearth of information in the public domain with regard to such crucial and mega-projects; neither is requisite information proactively disclosed as per Sec 4(I) of the RTI Act nor are complete details provided even when RTIs are filed. Concern has been expressed that RTIs seeking the Detailed Project Report (DPR) and information on financial viability, financiers, demand-supply details of power, etc. have been dodged by the state govt. and the matter is presently before the State Information Commission. It's a different matter that the Telangana SIC itself is severely under-staffed with a Chairperson and only one-member !
6. A large number of other scientific objections and queries raised by Dr. Babu Rao Kalapala, Former Scientist, IICT, Hyderabad; Shri Prasad Khale, Conservation officer, Conservation Action Trust, Mumbai, Shri Harinder from Human Rights Forum (HRF) & National Alliance of People's Movements (NAPM), independent researchers associated with the EIA Resource Centre, New Delhi; have not been answered satisfactorily or have been answered very vaguely without any substantive data, references, details by the PP. EAC had to ensure that these significant queries (which should have infact been posed by EAC) are fully answered by the PP, before further recommendations.

In its Judgment dt. 26th November, 2009⁹⁵, the Hon'ble High Court of Delhi in *Utkarsh Mandal versus Union Of India* held as follows:

"We therefore hold that in the context of the EIA Notification dated 14th September 2006 and the mandatory requirement of holding public hearings to invite objections it is the duty of the EAC, to whom the task of evaluating such objections has been delegated, to indicate in its decision the fact that such objections, and the response thereto of the project proponent, were considered and the reasons why any or all of such objections were accepted or negatived. The failure to give such reasons would render the decision vulnerable to attack on the ground of being vitiated due to non-application of mind to relevant materials and therefore arbitrary".

The above narration points to some very serious and fundamental concerns that have not been factored in adequately by the EAC-T, when it recommended that the YTPP must be granted environmental clearance and by the MoEF itself when it granted clearance, based on EAC's recommendation. Since the construction of Yadadri is yet to begin in a significant way, the MoEF must consider all these aspects and send back the matter to the EAC for reconsideration.

‘Public Hearing’ of Yadadri TPP (May, 2016)

⁹⁵ <http://lobis.nic.in/ddir/dhc/SMD/judgement/30-11-2009/SMD26112009CW93402009.pdf>



**Entire dalit hamlet of landless agri workers
excluded as SIA was not done : Vill. Tallaverappa gudem**



**3.90 kms of Tungapadu Vagu flowing through the project site
to be affected by YTPS**



8. NTPC Ramagundam Thermal Power Plant

Socio-Environmental Governance Issues and Gaps

I. Brief Background:

NTPC's Thermal Power Plant at Tehsil Ramagundam, District Peddapalli, is a composite project of multiple units constructed since early 1980's with a capacity of 2,600 MW. The Plant is owned and operated by the National Thermal Power Corporation (NTPC), Govt. of India. In Jan, 2016, the Corporation received clearance from MoEF & CC for expanding its capacity with installation of a 2 x 800 MW super critical plant, also known in the state as Telangana Super Thermal Power Project (TSTPP), construction of which is presently at an advanced stage. This chapter attempts an appraisal and overview of the environmental and social issues associated with this Project and in particular, the manner of regulatory governance by various monitoring authorities i.e. the MoEF & CC, EAC, PCB.

The study is based on a perusal of the Project Proposal, Final EIA Report of the Project submitted by the Project Proponent to the MoEF, correspondence between the PP and various authorities, submissions made by various stakeholders to the MoEF, Minutes of EAC meetings, clearance by MoEF, guidelines and notifications of MoEF, monitoring report of MoEF, consent by PCB, notices issued by PCB, submissions before the NGT, media reports etc. The study was further informed by detailed interaction with civil society activists and independent experts who have been working on issues concerning the Project.

A field visit to villages Badripalle, Mallaipalle, Kazipalle, Kundanapalle and Mathangi Colony affected by the NTPC Ramagundam Project as well as the project site, NTPC reservoir ash pond, waste disposal spot, natural streams stated to be polluted, NTPC township, was also undertaken in Sep, 2017 to understand the concerns and issues from the ground. The visit included extensive discussions with the villagers. A visit was also made to the regional office of the PCB Ramagundam to meet the Environmental Engineer and get his version as well, but he was on official tour and not available.

2. Project Fact File:

Sl. No.	Item	Details
1.	Name of the Project	Telangana Super Thermal Power Project (TSTPP); Phase - I
2.	Location (Village, Tehsil, Dist)	Tehsil Ramagundam, District Peddapalli.
3.	Capacity (total and unit-wise)	Cumulative Capacity of Old Units = 2,600 MW Cumulative Capacity of New Unit = 1600 MW (2 x 800 MWs TPP ⁹⁶).
4.	Project Proponent	National Thermal Power Corporation (NTPC), Govt. of

⁹⁶ NTPC originally proposed to set up a 2 x 660 MW TPP and MoEF granted ToR on 16/9/2014. Thereafter, the generation capacity was revised and the present 2 x 800 MW TPP was proposed, ToR for which was granted on 12/12/2014. This Plant is part of Telangana's share of 4,000 MW power, to be established by NTPC, as per AP State Reorganization Act, 2014.

		India
5.	Technology Type	Super Critical Coal-Fired Thermal Power Plant Older Units are Sub Critical Technology.
6.	EIA Consultant	Vimta Labs Ltd., Hyd
7.	Water Source	Sreepada Yellampalli Project. - Govt. of Telangana accorded permission for drawl of 60 cusecs (2 TMC) water throughout the year from this reservoir.
8.	Total Land Requirement	635 acres which would be part of the existing 9,602 acres of NTPC's land in Ramagundam. Therefore, no land acquisition issues, at this stage.
9.	Severely affected villages	Badripalle, Mallaipalle, Kazipalle, Kundanapalle and Mathangi Colony
10.	Status of Clearances	MoEF & CC granted Conditional Environmental Clearance (EC) to the TSTPP on 20 th January, 2016, with a 7 year validity period. Consent to Establish for 2 x 800 New Unit was issued on 20 th April, 2016 by PCB. Consent to Operate for 2,600 MW (Old Unit) issued on 19 th June, 2017.

3. Project Summary:

The National Thermal Power Corporation (NTPC) Limited formed and incorporated as a fully Govt. owned company under the Union Power Ministry, owns a sprawling 9,602 acres of land in Ramagundam, on which Thermal Power Plant Units with capacities totaling upto 2,600 MW was established since 1978. At the time of bifurcation of erstwhile Andhra Pradesh and formation of Telangana, the Andhra Pradesh State Reorganization Act, 2014 was passed, which stipulated that NTPC shall establish 4,000 MW power capacity in Telangana, after establishing necessary coal linkage⁹⁷. In keeping with the stated power requirements of the new state, NTPC - Project Proponent (PP) submitted proposal to the MoEF & CC for grant of Terms of Reference (ToR) for preparation of EIA for a 2 X 660 MW Thermal Power Project, ToR for which was granted by MoEF & CC on 16th Sep, 2014. Subsequently, the PP submitted a revised proposal for a 2 X 800 MW TPP and ToR for this revised capacity plant was granted by MoEF & CC on 12th Dec, 2014.

Immediately thereafter, NTPC entrusted the task of carrying out EIA to Vimta Labs Ltd, a Hyd-based Consultant, which collected baseline data between Dec' 2014 to Feb, 2015 and submitted the Draft EIA to the TSPCB, with a request to conduct the Public Hearing. The Regional Office of TSPCB, Ramagundam, issued a notification in Telugu dailies "Sakshi" & "Andhra Jyoti" and English Daily "Deccan Chronicle" regarding the proposed public hearing on 23rd May, 2015 in the presence of the Joint Collector and Addl. Dist Magistrate, Karimnagar. The Public Hearing⁹⁸ was held by PCB on 23rd May, 2015, as scheduled and the

⁹⁷ By virtue of the mandate in Section 93 of the Andhra Pradesh State Reorganization Act, 2014, Clause 7 of the Thirteenth Schedule of the Act stipulates that "NTPC shall establish a 4000 MW power facility in the successor State of Telangana, after establishing necessary coal linkages".

⁹⁸ Public Hearing Report:

<http://tspcb.cgg.gov.in/publichearings/NTPC,%20%20Karimnagar%20Dist.%20PH%20MIN.pdf>

Report for sent to MoEF & CC. As indicated in the public hearing report, speakers raised issues of lack of jobs to the project-oustees, pollution due to ash pond, health impacts etc. and sought for redressal of the same.

The EAC considered the progress on the EIA and the Public Hearing Report in its 45th meeting⁹⁹ held on 29th – 30th Oct, 2015 and seeking further details and information from NTPC, deferred recommendation of Environmental Clearance. The additional specific conditions recommended by EAC include installation of FGD, MoUs for ash utilization, compliance of EC conditions of existing TPP, long-term off-site and on-site temperature monitoring, occupational health and epidemic health disorders survey of study area etc. Based on certain information furnished by NTPC and additional conditions imposed, the EAC in its 46th meeting¹⁰⁰ held on 26th – 27th Nov, 2015 issued a recommendation to MoEF & CC for grant of Environmental Clearance.

Subsequent to the recommendation of the EAC, Conditional Environmental Clearance¹⁰¹ (EC) was granted to the Telangana Super Thermal Power Project (TSTPP); Phase-I of NTPC on 20th January, 2016 by the MoEF & CC for construction of a 1,600 MW plant (with 2 units of 800 MW capacity each), with a 7 year validity period. By this time, Govt. of Telangana also accorded permission for drawl of 60 cusecs (2 TMC) water throughout the year from Sreepada Yellampalli Project for the TSTPP. Coal India Limited also allotted tapering coal linkage for from Western Coalfields Ltd. (WCL) on 6th Nov 2015. Based on a site inspection by an Environmental Engineer from the Regional office, TSPCB, Ramagundam on 11th April, 2016 and recommendations of the CFE Committee, the Pollution Control Board issued Consent for Establishment¹⁰² to the 2 X 800 TSTPP on 20th April, 2016, under Sec 25 of Water Act and Sec. 21 of Air Act.

On 17th Feb, 2016, one Uma Maheshwar Dahagama (hereinafter referred to as The Petitioner), whose farmlands are situated within 13 kms radius of the Plant filed an Appeal No. 46/2016 before NGT challenging the legality of the EC granted on 20th Jan, 2016 and raising numerous concerns of environmental violations and lack of application of mind by the EAC in recommending grant of clearance and MoEF & CC in granting the clearance. NTPC filed a detailed Reply to this Application on 27th June, 2016 seeking dismissal of the Appeal and in the month of September, MoEF & CC filed its Response defending the validity and legality of the EC. Likewise PCB also filed an Affidavit, stating that the Public Hearing and CFE process was in compliance with law and sought dismissal of the Appeal. The Appeal was admitted by the NGT vide Order dt. 23rd Feb, 2016. After exchange of replies and rejoinders the matter was initially posted for final hearing on 17th April, 2017, but has been adjourned on multiple dates. As per the last order on record on the NGT's website dt. 23rd Nov 2017, the matter was posted on 4th Jan, 2018 for final arguments. No further update in this regard is available on the website. The matter is thus pending before the NGT for further / final hearing and orders. A Chronology of Key Developments is provided at the end of this chapter.

⁹⁹ [http://environmentclearance.nic.in/writereaddata/Form-1A/Minutes/0_0_111114123812131MoM45thEAC\(Thermal\)-noeastcoast.pdf](http://environmentclearance.nic.in/writereaddata/Form-1A/Minutes/0_0_111114123812131MoM45thEAC(Thermal)-noeastcoast.pdf) (Pgs 1-3)

¹⁰⁰ [http://environmentclearance.nic.in/writereaddata/Form-1A/Minutes/0_0_121114125112111MoMof46thEAC\(TPP\).pdf](http://environmentclearance.nic.in/writereaddata/Form-1A/Minutes/0_0_121114125112111MoMof46thEAC(TPP).pdf) (Pgs 1-7)

¹⁰¹ <http://www.ntpc.co.in/sites/default/files/downloads/EC%20TELANGANA%20STPP%20STAGE-I.pdf>

¹⁰² As mentioned in Para 6 of the Reply filed by the PCB dt. 26th Sep, 2016 before the NGT in Appeal No. 46 of 2016 [M/s Uma Maheshwara Dahagama versus Union of India and 2 Others].

4. Key Issues, Concerns and Violations:

The present TSTPP is to come up at the same place in Ramagudam where the 2,600 MW TPP has been operational since 1983 and has reportedly been causing considerable pollution and environmental impacts in the area. The local residents have been flagging issues such as deposit of ash on their houses, respiratory ailments, contamination of bore wells in the region, apart from the increase in ambient temperature; which goes anywhere upto 45°C – 49°C during the peak summers.

The plant area is situated in the vicinity (15 kms radius) of various types of red category industries such as Thermal Power Plants¹⁰³, Cement Industry, Fertilizer Industry, Open Cast and Underground Coal mining projects, etc. The Petitioner has claimed before the NGT that *“EAC has also failed to apply its mind to the fact that other projects in the area, including mines and thermal plants have returned with studies that indicate a much higher levels of ambient pollution”*

A bare perusal of the Minutes of the 46th Meeting of EAC would reveal that even at that point, when EAC recommended the Project for EC, the Project Proponent was yet to study and assess the impacts of the project on key aspects such as health of the local population. The following quote from the Minutes of the 46th EAC meeting is revealing:

“As the data for the health studies was more than five years old, a fresh Occupational Health and epidemic health disorders survey of the study area (10 km radius) shall be conducted and the report submitted to the Ministry and its R.O. within one year”

It has also been contended before the NGT that many other crucial aspects such as impact of water drawl, especially on downstream areas, impact of discharge of heated water on the environment, impact of the transmission lines, the impact of the construction, the transportation of fly ash, likely nuclear radiation all of which are significant and will have major adverse impacts on the environment have not been dealt with adequately in the EIA.

It may be noted that as per the EIA Notification, 2006, ToR of MoEF & CC and Guidelines issued by the MoEF, these impact studies have to be undertaken at the time of preparation of EIA itself and ameliorative measures also need to be planned and incorporated in the EIA. It is only after such an EIA is done can the EAC appraise and recommend the Project for an EC and the MoEF & CC can grant clearance.

4.1 Approval of EIA and grant of EC without confirmed coal characteristics:

It may be noted that while the EIA itself was prepared by March, 2015, the coal allotment at Mandakini-B Coal mine in Orissa from the Ministry of Coal came as late as in September, 2015. Coal India Limited allotted tapering coal linkage for TSTPP from Western Coalfields Ltd. (WCL) in Nov, 2015, after MoC's in-principle approval, as an exceptional case, till the operation of Mandakini-B Coal block. NTPC estimated that the TSTPP would require 8

¹⁰³ Para 17 and Para 18 (Page 6) of the “Reply to Rejoinder and Annexures filed on behalf of the 3rd Respondent – NTPC Ltd” dt. 6th Feb, 2017 admits that Old Units of NTPC, Ramagundam are within 10 kms radius and Jaipur Thermal Power Plant at Village Jaipur, Manchiryal Dist, right across Godavari river is situated within 15 kms and is a potential emission source.

MTPA (Million Tons Per Annum) coal, if sourced from the nearby Singareni Collieries Company Ltd (SCCL); of which it has obtained confirmed fuel linkage agreement for 2 MTPA. However, PP has not provided complete coal characteristics even for the 2 MTPA.

MoEF's OM dt. 19/04/2012¹⁰⁴ stipulates that the exact coal characteristics must be known to enable proper assessment of the environmental impacts of the project in question at the time of EIA and confirmed coal linkage is necessary prior to grant of EC. The aforesaid OM also requires that:

6. *"In the eventuality of change in coal parameters with respect to the parameters based on which EIA was prepared, it would be necessary that the project is referred back to MoEF to revisit the environment clearance granted earlier so as to assess the adequacy of the conditions already stipulated and to incorporate any additional condition as may be necessary in the interest of environment protection including provision of FGD for control of SOx emissions".*

It is not clear from the minutes of EAC as to whether the coal characteristics assumed in the EIA match its counterpart produced before grant of EC. The issue of coal quality was not raised and discussed in the EAC as well, wherein it was only stated that *"Regarding tapering coal linkage, Coal India Limited (CIL) vide its letter dated 06.11.2015 has allotted tapering coal linkage for the Telangana Stage-I STPP (2x800) MW from Western Coalfields Ltd. (WCL)"*.

It could thus be stated that the onus of ensuring that the coal characteristics assumed in the EIA must match its counterpart produced before grant of EC is on the PP must be verified by the EAC and by the MoEF before recommendation for EC and EC is granted respectively. However, MoEF has remained silent on this issue in its Affidavit before the NGT.

4.2 Authenticity of Data on Ambient Air Quality (AAQ) Questionable:

The Petitioner has also stated before the NGT¹⁰⁵ that the PP has attempted to under report the baseline concentrations of Sulphur Dioxide and Particulate Matter, thus projecting the net predicted resultant concentrations to be lower than the stipulated National Ambient Air Quality (NAAQ) Standards. The PP has however denied the averments of the Petitioner as unscientific in its Reply¹⁰⁶ before the NGT wherein it has claimed that ambient air quality monitoring has been done as per the guidelines of the MoEF & CC / CPCB Guidelines and as per the approved Terms of Reference.

Be this as it may, the following figures from the EIA Report do raise certain concerns on the authenticity of the EIA study on the Ambient Air Quality and can be illustrated by comparing the figures stated in the EIA of TSTPP and figures of the April, 2015 EIA Report of Fertilizer Corporation of India¹⁰⁷, situated within 10 kms radius of TSTPP:

¹⁰⁴ <http://www.moef.nic.in/downloads/public-information/notif-20042012.pdf>

¹⁰⁵ Para B (Page 12) of the Submission by Applicant before NGT dt. 17th Feb, 2016.

¹⁰⁶ Para 27 (Page 17) of Reply Statement by Respondent No. 3 (NTPC) dt. 27th June, 2016

¹⁰⁷ FCI EIA Report, Apr' 15

<http://environmentclearance.nic.in/writereaddata/EIA/27042015VBWZJ8KJEIARReport.pdf>

- a) **Sulphur Dioxide:** The FCI EIA reported the maximum baseline concentration of SO₂ as 34.2 µg/m³, as against the maximum SO₂ concentration figure of 29 µg/m³ stated by PP in the instant EIA (baseline data for which was monitored in winter between Dec 2014 – Feb, 2015). ToR for FCI Plant was granted on 31st March, 2014 and the EIA Report of FCI states likely that baseline survey was done in the pre-monsoon months (i.e. summer) of 2014¹⁰⁸. The submission before NGT states that FCI is located barely 1.7 kms from Ramagundam project site. Thus, the petitioner before NGT has raised concern that contrary to the lower SO₂ concentration figure shown by the NTPC, the concentration of SO₂ in the proposed project area has been increasing.

Furthermore, as stated by the petitioners before the NGT, the Project Proponent (NTPC) has projected reduced SO₂ figures (despite the baseline studies conducted in winter, as against higher SO₂ figures mentioned in EIA of FCI (despite baseline studies being done in summer)). This is a matter that requires clarification, as per petitioners, since during summer months, when there are higher temperatures and wind speeds, there is a propensity for greater dispersion of air pollutants and the pollutants in the air get recorded on the lower level. However, during the winter season, the air pollutants get recorded on the higher level as the wind speed is less and pollutants do not disperse. Thus, pollutant concentrations in the AAQ when conducted by NTPC (winter) should have been relatively higher, as against the FCI study period (summer), while the concentration levels of NTPC are much lower.

Therefore, comparatively, it is the obvious case of the petitioner that AAQ's of NTPC should have returned with much higher pollutants than what has been obtained by the FCI. However, the concentrations reported by NTPC are much lower than concentrations reported by the FCI, as could be evidently seen from the example given.

- b) **Particulate Matter:** The submissions before the NGT state the baseline concentration of PM₁₀ in the EIA report of FCI is 109 µg/m³ at Godavari Khani (within the study area), while the PP has only presented a figure of 68.5 µg/m³ in the instant EIA for Ramagundam TPP. Even at this limited figure, the PM₁₀ level in the project area is beyond the permissible limit of 60 µg/m³ as per the NAAQ Standards notified by the Central Pollution Control Board on 18th Nov, 2009¹⁰⁹. Petitioner also claims that not just the FCI's EIA Report, but various coal mining project agencies in the locality of the project establish that the PM values are beyond permissible limits. It has also been contended before the NGT by the petitioner that the sampling locations have not been spread throughout the study area and have been concentrated in a few locations and hence these samples cannot be considered adequate or representative, since a major portion of the study area remains un-assessed.

4.3 Ineffective Cumulative Impact Assessment (CIA):

In addition to all this, a Cumulative Impact Assessment (CIA) study within 15 kilometers¹¹⁰ radius was essential considering the fact that TSTPP is coming up in an already

¹⁰⁸ Sec 3.1 of Page 72 of the EIA Report of FCI, April, 2015.

¹⁰⁹ <http://www.moef.nic.in/sites/default/files/notification/Recved%20national.pdf>

¹¹⁰ ToR No. 1 granted to the Project states that CIA must be conducted in the 10-15 kms radius, as applicable. [PDF Pg 293 of the EIA Report for 2 x 800 MW NTPC TPP]

polluted zone, with numerous Red Category industries such as Thermal Power Plants, Cement Industry, Fertilizer Industry, Open Cast and Underground Coal mining projects, etc within 15 Kilometers radius of the instant project area (ex. Ramagundam Open Cast Pit Mine-I and ROCP- II, Jaipur Thermal Power Plant). It may also be noted that when the EIA of TSTPP was being prepared, the 2 x 600 MW SCCL TPP, 13 kms away, was not operational.

The following paras on CIA from the Judgement of the NGT in the widely known IL & FS Thermal Plant, Cuddalore case¹¹¹, wherein the NGT held that “*EAC failed to apply its mind to the material placed before it by the rival parties and proceeded to recommend the conditions purportedly for safeguarding the environment*” are relevant here:

“The European Commission in its guidelines for Assessment of indirect and Cumulative impacts as well as impact interactions defines Cumulative Impact as “Impacts that result from incremental changes caused by *other past, present or reasonably foreseeable actions together with the project*”. CEAA guidelines give similar definition of Cumulative effects: *these are changes to the environment that are caused by an action in combination with other past, present and future human actions. The U.S Environmental Protection Agency defines it as “the combined incremental effect on human activity.*

Thus, the Cumulative Impact as the term indicates is not the impact of any project in isolation but it is a total impact resulting from the interaction of the project with other project activities around it- past, present and those to come up in future. It is a comprehensive view of the impacts resulting from all the projects- past, present or planned ones on the environment. Cumulative Impact may be same or different and those arising out of individual activities and tend to be larger, long lasting and spread over a greater area within the individual impact. Such studies are therefore commonly expected to:

- 1. Assess effects over a larger area that may cross jurisdiction boundaries;*
- 2. Assess effects during a longer period of time into the past and future;*
- 3. Consider effects on other eco-system components due to interactions with other actions, and not just the effect of the single action under review ;*
- 4. Include other past, existing and future (reasonably foreseeable) action; and*
- 5. Evaluate significant effect in consideration of other than just local and direct effects.”*

While, the ToR No. 1 did stipulate that the project proponent should conduct CIA study within 10/15 kilo meters radius, as applicable, the PP initially limited the study only to the 10 kms radius. As admitted by PP itself in the EIA and additional information submitted to EAC¹¹², even within this limited radius, key parameters, such as stack emissions of FCI, that is located within the 10 kms radius has not been computed. Notably, it was only before the NGT that the PP stated for the first time that, ‘subsequently cumulative impact assessment has been carried out by the QCI accredited consultant considering all polluting industries in

¹¹¹ Pages 31-33, (Para 41) of the Judgement of the NGT dt. 10th Nov, 2014 in Appeal No. 50/2012 in T. Muruganandam and Ors versus MoEF & Ors. (popularly known as ISL&FS Thermal Plant, Cuddalore case)

¹¹² Para 21 (Page 16) of Submission by Applicant before NGT dt. 17th Feb, 2016.

15 kms radius including both the OCP and SCCL TPP¹¹³. A perusal of available records indicates that the full CIA Report of 15 kms radius has not been placed by the PP before the NGT. The same could also not be found on the website of MoEF & CC.

While considering the cumulative impacts of thermal projects in the context of radiation, the NGT in the Krishi Vignan Arogya Sanstha case¹¹⁴, directed the following, amongst other things:

“The first respondent, Ministry of Environment and Forests is directed to look into the matter as to long term impacts caused by nuclear radiation from the thermal power projects, by instituting a scientific long term study involving Bhabha Atomic Research Agency or any such other recognized scientific institution dealing with nuclear radiation with reference to the coal ash generated by thermal power project (Respondent No. 3) particularly the cumulative effect of a number of thermal power project located in the area on human habitation and environment and ecology. The study shall also take into consideration the health profile of the residents within the area in which the pollutants are expected to spread from the thermal power project.”.

4.4 Hydro Geological Impacts Ignored:

ToR No. 20 mandates the PP to conduct a Hydro-geological study in order to assess the impacts of the proposed project on Hydro-Geology. Petitioner before NGT has claimed that while such a study has been conducted, the same lacks the necessary rigour to envisage the actual impacts on ground and surface water.

Ground Water Impacts: Perusal of EIA does not clearly reveal the exact details of ground water that would be used at the time of construction and the impact such extraction would have on the ground water. Further, the PP has admitted that the ground water is available at a depth 4-6 meters below the ground, also owing to an existing balancing reservoir. However, the possibility of heavy metal leeching into the Ground Water from the Ash Pond has not been envisaged and studied.

Surface Water Impacts: That the 10 kms study area of the project is replete with many water bodies, including River Godavari is clear from Figure 5 at Page 9 of the Hydro-Geology Report (Annexure-XVII) in the EIA report. The same figure also reveals that the Project itself is located on a water body but neither this fact nor the likely impacts of the Project being situated on a water body have been mentioned in the EIA report. This aspect also never came up during the entire appraisal process. The 7th Dec, 2015 Notification of MoEF & CC states that Zero Liquid Waste Discharge (ZLWWD) must be ensured for all plants installed after 1st Jan, 2017.

Although PP claims in the EIA and also in Para 5I of their Reply before NGT dt. 27th June, 2016 that Zero Liquid Waste Water Discharge (ZLWWD) method shall be adopted to

¹¹³ Para 18 (Page 6) of the “Reply to Rejoinder and Annexures filed on behalf of the 3rd Respondent – NTPC Ltd” dt. 6th Feb, 2017

¹¹⁴ Page 28, (Para 10) of the Judgement of the NGT dt. 20th Sep, 2011 in Appeal No. 7/2011 in Krishi Vignan Arogya Sanstha , Nagpur versus MoEF & Ors, New Delhi.

recycle and utilize the effluent waste water of the project, as per 7th Dec, 2015 regulation¹¹⁵ of MoEF & CC, the Petitioner has expressed concern before the NGT¹¹⁶ that actual details such as quantum of waste water which will be generated out of the plant per hour/per day and the feasibility of utilizing the full quantum of effluent water have not been furnished. Likewise, except for a mere statement in Chapter 4 of the EIA that “some quantity of effluent shall be discharged into natural water course after necessary treatment”, EIA does not provide adequate details regarding the quantum of effluent water to be discharged into Godavari per day, per month and per year and the likely impact it would have on the river and its aqua-ecology.

The Report on the “*Status of Water Quality in India- 2012*”¹¹⁷ released by the Central Pollution Control Board notes that the river Godavari at Ramagundam area has already exceeded desired water quality criteria. To quote from the Report:

“The River Godavari at most of locations in Maharashtra and Bhadrachalam U/s, near Rly Bdg B/c of Rallavagu at Mancheril, Rajahmundry D/s, Godavarikhani, Ramagundam U/s & D/s and Burgampahad in A.P. is exceeding desired water quality criteria. The sources of pollution is from domestic and industrial wastewater generated from the large cities in Maharashtra and Mancheril, Ramagundam, Rajahmundry, Godavarikhani, Burgampahad and Bhadrachalam cities in Andhra Pradesh. Depletion of dissolved oxygen has been reported due to addition of sewage into the river besides bacteriological pollution. To maintain the desired water quality uses of the River Godavari in these stretches, the municipalities need to treat their wastewater and the industries to install effluent treatment plants (ETP) before discharging into the rivers for sustaining the desired level of water quality”.

Discharging additional effluents would certainly have a deleterious impact on the river and not only the Consultant and PP, even the EAC and MoEF should have been very careful while considering these aspects. Mention of such crucial details is conspicuous by its absence in the EIA Report, thereby weakening the overall impact assessment.

4.5 Severity of Health Impacts Undermined:

ToR No.34 requires the PP to conduct a study on Occupational and Epidemic health disorders. Not only did the PP not conduct such a study, it went ahead and submitted a dated 2009 survey report done by M/s Pollucon Laboratories Pvt. Ltd, which stated that “*the health related problems found during the study like general health related complaints, high blood pressure, malnutrition, anaemia, refractive error were mainly due to life style related factors and not due to above mentioned pollutants in emission*”¹¹⁸.

Despite, the EAC pointing out the dated nature of the Report in its 45th Meeting and directing it to do a fresh survey, the PP re-submitted the executive summary of same report of M/s

¹¹⁵ The OM dt. 7th Dec, 2015 stipulates that ZLWWD must be ensured for all plants installed after 1st Jan, 2017 (Available at: <http://www.moef.gov.in/sites/default/files/Thermal%20plant%20gazette%20scan.pdf>)

¹¹⁶ Para III (Page 19), Submission of Applicants before NGT dt.17th Feb, 2016

¹¹⁷ Page 127, Status of Water Quality in India (2012), Central Pollution Control Board, New Delhi.

¹¹⁸ Minutes of the 46th EAC Meeting dt. 26-27 Nov, 2015

Pollucon Laboratories Pvt. Ltd for the second time in the 46th meeting of EAC held on 26th and 27th November, 2015. Instead of taking strong exception to this and re-directing PP to come back with a fresh survey, EAC allowed the PP to have its way and went ahead recommending the project for an EC, by merely prescribing the following condition:

“XI. As the data for the health studies was more than five years old, a fresh Occupational Health and epidemic health disorders survey of the study area (10 km radius) shall be conducted and the report submitted to the Ministry and its R.O. within one year.”

Before the NGT, the NTPC stated¹¹⁹ that *“In compliance of the EC condition, the fresh consultancy package for undertaking Occupational Health and Epidemic Health Disorders Survey of the study area (10 km radius) was awarded to M/s Pollucon Laboratories Pvt. Ltd., Surat vide LoA dated 22/10/2016 and the study is under progress. Further, the Final Report will be submitted to the Regional office of MoEF & CC as and when it is finalized”*

The claim of the Project Proponent that diseases of people are not because of the pollutant emissions but because of their lifestyle is misleading and un-scientific. In his Appeal before the NGT, the Applicant states as follows¹²⁰:

“Over-whelming evidence of peer reviewed published scientific studies across the globe, including the studies in India, have already quantified the morbidity and mortality effects of coal fired power plant emissions in the Ambient Air on human health. Physicians for Social Responsibility, a Nobel Prize winning professional association published a report entitled “Coal’s Assault on Human Health” in 2009. The Guardian in its news report dt.12th February 2016 reported a scientific study presented at the American Association for Advancement of Science by a group of scientists from US, Canada, China and India concluding that more than 5.5 million people died in 2013 due to air pollution and India contributed 1.4 million deaths to that number. Infact, the severity of pollution in the instant project area is likely to be much more as the Particulate Matter and other pollutants level in the AAQ is already very high”.

The National Environmental Engineering Research Institute, at Page 2 of its Report of February, 2006, titled *Summary report of the study on “Post-Clearance Environmental Impacts and Cost-benefit Analysis of Power Generation in India”*¹²¹ has highlighted that residents living within 2 kms radius of the Ramagundam TPP suffer from respiratory diseases. It is, therefore, clear that the ToR had to be adhered to in a careful and complete manner, but the PP very casually ignored the same and the EAC & MoEF & CC, as well failed to acknowledge the seriousness of the impact as well as the violations. Even a decade later, the situation has not changed for the better is observed revealed from field inquiry by the instant researcher and rather is likely to intensify with

¹¹⁹ Para 79 (Page 29), of the “Reply to Rejoinder and Annexures filed on behalf of the 3rd Respondent – NTPC Ltd” dt. 6th Feb, 2017

¹²⁰ Para 28 (Page 21), Submission of Applicants before NGT dt.17th Feb, 2016

¹²¹ Page 2, Summary report of the study on Post-Clearance Environmental Impacts and Cost-benefit Analysis of Power Generation in India (February, 2006), National Environmental Engineering Research Institute, New Delhi. Available at: <https://www.ercindia.org/files/neeri.doc>

expansion of capacities and newer TPP in the vicinity. To quote from the above Report:

“From the epidemiological data of the area surrounding the Ramagundam coal based plant, it has been observed that around 6.5% of population living within a 2 km radius of the plant suffers from respiratory disorders, while the figure decreases to 3.2% at a distance of 2.5 km and becomes negligible (0.91%) at over 5 km from the plant. Thus it can be inferred that people living within 5 km radius of coal based power plant suffer from respiratory ailments”.

4.6 MoEF's Site Inspection Team exposes non-compliance of EC conditions of existing TPP:

Prior to grant of clearance to the TSTPP, the Regional Office of MoEF & CC conducted a site visit on 24th Aug, 2015 to the existing plant. The Site Inspection Report brought forth serious issues of non-compliance of the environmental clearance conditions such as AAQ not being in conformity with latest NAAQ standards, inadequate treatment of effluents and untreated effluent water from ash pond being directly discharged into nearby agricultural fields, no online monitoring of gaseous emissions, 100% ash utilization not being achieved, no separate environmental funds being maintained, non-submission of compliance reports regularly and no dedicated pipeline for effluent water, etc, no details furnished regarding measures to avoid leeching of heavy metals from ash pond into ground water.

Relevant excerpts from the MoEF's Site Inspection Report is as follows:

“Observed non-compliances & recommendations for immediate corrective action:

- (i). Third party monitored AAQ parameters are not conformed to the latest NAAQ standards – **condition no. 6.***
- (ii). Part of the ash pond effluent is being discharged without treatment to the nearby agriculture fields – **condition no. 7.***
- (iii). PA has not achieved 100% Ash utilization plan as stipulated in the **condition no. 13 &***
- (iv) Treatment of effluents and its monitoring needs to be strengthened-**condition no. 7.***
- (v). During ash pond reclamation the condition no. 19 needs to be complied with.*
- (vi). Project authority needs to install online monitoring devises for gaseous emission also in addition to the particulate matter - **condition no. 20.***
- (vii). Separate funds on environmental protection measures have not been maintained - **condition no. 25 & condition no. 5 of Clearance letter No. J-13011/20/94-IA.II(T) dated 08.II.2000.***
- (viii). Soft copy of the six monthly compliance report has not been submitted to the RO of MoEF & CC regularly. Six monthly compliance report needs to be submitted by Project Authority both in hard and soft copies along with monitored data to the Regional Office of MoEF & CC. The same needs to be uploaded on the website of the company and periodically updated - **condition no. 27***
- (ix) Treated water is partly utilized for ash handling / ash slurry pumping and partly discharged in to River Godavari. It appears that the unit do not have dedicated pipeline till the discharge point of the river rather the treated water of the unit getting mixed-up with domestic waste water drainages before confluencing into the river Godavari. Necessary corrective action needs to be taken to avoid conflict in near future regarding treatment of effluents by M/s NTPC”.*

Before proceeding further and recommending / granting EC to the TSTPP, both EAC and MoEF & CC should have ensured full compliance on all these aspects and held the PP fully liable for the violations and impacts, in accordance with the statutory provisions. MoEF's Circular dt. 30th May, 2012¹²² stipulates that:

“2. It has been now decided that while submitting the application for consideration for grant of environmental clearance of all expansion projects under the EIA Notification, 2006, the project proponent shall henceforth submit a certified report of the status of compliance of the conditions stipulated in the environmental clearance for the ongoing / existing operation of the project by the Regional Offices of the Ministry of Environment and Forests.

3. The status of compliance of the conditions stipulated in the environmental clearance as highlighted in the report(s) will be subsequently discussed by the respective Expert Appraisal Committees during the appraisal of the expansion proposal and duly recorded in the minutes of the meeting. Applications for expansion project received without the compliance status as mentioned in para no.2 above shall not be accepted and placed for consideration before the Expert Appraisal Committees”.

There is no reference in the 45th and 46th EAC Meeting Minutes of compliance of above conditions 2 and 3, indicating that neither EAC nor MoEF & CC have taken any serious cognizance of the non-compliance and environmental damages that have been caused. Instead, despite all these violations, the EC has been granted. The clearance granted to TSTPP is, therefore, questionable in terms of the aforesaid OM of MoEF.

It may also be noted that the regulatory authorities, MoEF & CC and PCB who are expected to respond in detail to the concerns raised by the petitioner, in the context of the reply by the PP, have filed very superficial responses before the NGT. The PCB¹²³, has only given a brief timeline narrative of the conduct of public hearing, submission of PH report to MoEF, grant of EC and grant of CFE by PCB on 20th Apr, 2016, without referring to any of the substantive contentions in the submissions of the petitioner. The MoEF¹²⁴ has also limited its reply to a factual narration preceding the grant of EC and has not touched upon any of the numerous arguments put forth by the petitioner in a comprehensive manner.

4.7 Non-consideration of Grievances raised during Public Hearing by EAC:

Notably, quite a few speakers in the Public Hearing held on 23rd May, 2015 raised some important issues and grievances, but the PP did not make any substantial commitment to address these issues in the hearing or Final EIA. Some of the key issues raised in the hearing could be summed up as follows:

- *Lack of compliance on promise of jobs to those whose lands were taken for establishing previous TPP units by the same PP -NTPC (225 jobs were promised in the previous hearing)*

¹²² <http://www.moef.nic.in/downloads/public-information/eia-300512.pdf>

¹²³ Reply filed by the PCB dt. 26th Sep, 2016 before the NGT in Appeal No. 46 of 2016 .

¹²⁴ Reply filed by the MoEF & CC dt. Sep, 2016 before the NGT in Appeal No. 46 of 2016

- *Condition of project oustees needs to be improved. They have been working as casual labourers for the past 25 years, with no security and permanancy of tenure.*
- *Pollution due to Ash pond water, impact on crop productivity and no redressal despite multiple complaints.*
- *Severe pollution issues in Mathangi colony due to sewage treatment plant and Kazipally village due to noise and dust pollution,*
- *No visit by NTPC officials to affected villages to monitor the ground level issues and problems of pollution, lack of amenities and basic infrastructure etc.*
- *Serious health issues due to lack of potable drinking water.*

These crucial issues should have been considered by the EAC in all seriousness and NTPC should have been asked to respond concretely on all concerns raised in the Hearing. But there is hardly any discussion in the 46th EAC Meeting regarding the grievances raised during the Public Hearing, when the Project was recommended for clearance. There is no reference as to whether the PH video was even viewed by the Committee, to gauge the manner in which the hearing was conducted.

4.8 NTPC' Environment Policy, 2017: High on Ideals, Low on Execution:

Almost 22 years after it promulgated its first Environment Policy, the NTPC adopted a new Environment Policy in July 2017¹²⁵, superseding its earlier policy document of 1995. The Policy aims to “*provide cleaner energy by committing to highest possible levels of performance in environmental compliance, practices and stewardship*”. Amongst its core principles, the Policy identifies “*accepting accountability for all operations and expeditiously respond to any aberration*” and “*continuous monitoring and sharing of environmental indicators with stakeholders ensures NTPC's commitment towards continual improvement in environmental performance*”. The Policy also seeks to “*adopt a pro-active approach, place environmental aspects as one of the prime consideration in decision-making process*”. It states *interalia* that NTPC shall “*formulate and adopt separate Policies for Ash, Rehabilitation & Resettlement, Community Development – Corporate Social Responsibility and Sustainable Development*”.

Some other key provisions of the Policy are as follows:

2. *Compliance and Assurance:*

- NTPC shall continue to comply with all relevant environmental regulations, standards and other codes of practice, by operating and maintaining the assets within bounds of permits, consents, and licenses.*
- Risk Management Committee and, shall establish system for reporting environment related parameters, deviations and constraints to management. Environmental risks perceived shall be reviewed through risk management mechanism for appropriate action.*
- Concerned group shall oversee compliance assurance of operating stations through reviews and appraisals.*

¹²⁵ Environment Policy (2017), National Thermal Power Corporation
<http://www.ntpc.co.in/sites/default/files/downloads/NTPCEP17.pdf>

d. All clearances, along with any futuristic requirements shall be accounted for in new establishments and expansions.

The entire narration in Section 4 above, pointing to the numerous gaps and violations in the process of environmental compliance is indicative of the fact-situation that despite a seemingly benign policy of NTPC that claims to prioritize environmental parameters and monitoring, the ground reality at Ramagundam is far from satisfactory, both in terms of the actual measures to be complied with and also the mechanisms that need to be put in place for follow-up for the same.

5. Observations from the Field:

5.1 Countering the claims by the Project Proponent, the villagers who the researcher met claim that:

- Anywhere upto 13,000 acres of land is available with NTPC in the area (9,600 acres private/acquired land and rest Govt. land). The land has not been used fully or even in a rational manner and there are lots of spaces in between, in a hap-hazard manner.
- As against the PP's claim in the EIA Report that 13 lakh trees have been raised in the NTPC's premises, less than 3 lakh trees are actually there, on the ground. Thousands of saplings were just planed and died, without proper care and attention.
- In all these years, at the most 20% affected people have got permanent jobs, 20% work as Casual Labour and the rest 60% are jobless !

Infact Clause I.3 (Employment) of the Rehabilitation & Resettlement (R&R) Policy (July, 2017), of NTPC states that *"NTPC Projects are capital intensive with state-of-the-art technology and, therefore, do not offer much direct job opportunity, employment with NTPC would be severely restricted. NTPC would therefore encourage other non-employment rehabilitation options in the form of onetime cash grants, annuity etc. However, in case of any such opportunities arising at the project, preference would be given to PAFs subject to suitability and availability"*.

However, the above policy is not conveyed clearly to the villagers during the public hearing, wherein, the senior official of NTPC stated¹²⁶ that *"the project will provide either direct or indirect job opportunities to the local population, as far as possible"*. Moreover, such a policy provision itself needs to be reviewed, since it defeats the spirit of public interest of such large projects, which have amongst its aims, employment-generation for the communities affected.

5.2 Farmer and environmental activist, Mr. Uma Maheshwara Rao, who is also the petitioner before NGT states that NTPC and even PCB have been downplaying most of the complaints from the locals. While MoEF's RO team admitted that 64% ash is being utilized, he says less than 25% of overall ash is being utilized. With Open cast mines, Jaipur TPP, Fertilizer Corp. of India, Kesoram Cements and many other industries within the 10-15 kms radius, he states, further expansion of NTPC capacity is likely to have a severe impact on the local environment. He claims that he was verbally stopped by the NTPC AGM when he tried to narrate these

¹²⁶ Page 4 of the Public Hearing Report:

<http://tspcb.cgg.gov.in/publichearings/NTPC,%20%20Karimnagar%20Dist.%20PH%20MIN.pdf>

issues in the Public hearing. In his words, it was NTPC that was 'running the show', although the banner of PH was by PCB. There was a heavy police and CISF presence. A few people participated in the PH, but there were categorically told that only one person per village would talk. There was a severe time restriction, he states.

5.3 Adv. Komaraiah of the Land Oustees Association conveyed that long-drawn legal battles had to be fought just to get a few jobs for the oustees in the NTPC. There has been very little that NTPC has done for the PAFs in so many years, he says. He also confirmed (what was observed) that the ash pond has on its sides encroached upon forest land, while no permissions / clearance has been taken from the Forest Dept/MoEF. When questioned about information of the MoEF & CC team's visit, he stated that he himself was unaware and also pointed to non-transparency of authorities and lack of basic awareness amongst people.

5.4 The local activists and villagers also showed us the location where massive municipal waste from the NTPC township (waste of 2,000 + families) is being disposed off into the Godavari and the same is being sent back to the villages nearby for consumption. Apparently, a 3 crore ETP was set up in 2005, but it functioned for less than 6 months and has been defunct ever since. (see pictures below).

5.5 Village-Specific Grievances:

While the villages in the NTPC plant vicinity face some common issues such as pollution, health impacts, agricultural losses, there are also distinct problems that each village faces and, therefore, for these set of reasons they seek to be resettled and rehabilitated elsewhere ! But the NTPC has been rejecting all these claims for R&R basically on the ground that their utilities (including the new plant) are 'within the NTPC premises', and since there is no further LAQ involved for the new Units, there is no need for R&R.

5.5.1 Village Kundanapalle:

The villagers have been facing serious issues of pollution, esp, dust and air pollution – the huge ash pond is very near to the village and deposit of dust is a regular problem they encounter. People also recounted multiple instances of cancer deaths and other health-ailments, skin allergies, heart attacks of even a youngster at 35 years. Due to breakage of slurry pipelines, the agricultural land is being affected. Upon asking the Village Panchayat officials as well as villagers, as to whether the EIA Report / summary as well as notice of the Public hearing was received, they said NO and also informed that there are no records of the PH meet in the Panchayat, although some villagers did participate in the hearing by way of word-of-mouth.

5.5.2 Village Kazipalle:

A village with more than 300 houses, the residents here, mostly farmers lost almost 2,000 acres land for NTPC township, reservoir and plant area. They complain of unbearable stench from the oxidation Pump house and dumping yard which is 500 mts away from the village. The village is facing acute drinking water problem. People in the dalit basti of the village also complain of similar problems. Only 2 people from this village have been given permanent jobs and infact one youth was pushed to suicide (and succumbed) in September, 2017 since he was

reportedly asked Rs. 50,000 for some job offer by NTPC officials and he could not pay the same ! During interaction with numerous women and men here, they also complained of many health impacts including TB, heat stroke and also a person who lost vision. None of the villagers, when questioned, were aware of the visit by the Regional Office of MoEF.

5.5.3 Village Malliyalapalli:

The villagers here have been victims of multiple displacement, with a significant chunk of their fertile farm lands acquired by NTPC and certain other lands acquired for the BPL Thermal Project; which never came up, but even after 15-20 years this unused land is not being returned to the farmers. They also complain of pungent smell and severe sound pollution due to constant plant operations, esp. safety valve, which is less than 500 mts from the village. Mr. Praveen, the Area Corporator, representing the SC community raised an important issue of no public representation in the CSR Committee of the NTPC – i.e. it is entirely comprised of officials.

5.5.4 Mathangi Colony:

This is the colony situated closest to the plant site. A bare wall separates the colony from the Plant. The residents of this colony also face serious pollution impacts of the Plant. There have been many cancer deaths in the colony as well as patients living with TB. They also tried to raise these issues in the PH, but reportedly NTPC has ‘trivialized’ the same by stating that water sprinkling would be done regularly. Only one person from the Colony was permitted to talk in the PH.

5.5.5 Village Badripalle:

The village is cordoned off by the huge NTPC wall on three sides and the only side that the village is open has the Singareni railway track, where goods trains stop for many hours in a day, multiple times causing serious hardships to the villagers with regard to conveyance, grazing of their livestock etc . There have also been incidents of casualty and accidents. People are therefore demanding permanent R&R. Having lost their lands to the project, many people have to travel 15-20 kms away in share autos daily for agriculture labour work.

6. Non-implementation of NTPC’s R&R Policy:

The NTPC notified its revised R&R Policy¹²⁷ in July, 2017 which includes amongst other things:

- a. **Entitlements for Compensation as well as R&R benefits:** NTPC stands committed to follow the envisaged provisions in The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 (RFCT LARR Act, 2013) in totality in manner and as per procedure as laid down in the Act.
- b. **Transparency:** Consultation and participation of PAFs, their representatives and NGOs to ensure transparency in R&R, through a multi stakeholder consultative mechanism like

¹²⁷ Rehabilitation & Resettlement (R&R) Policy (July, 2017), National Thermal Power Corporation www.ntpc.co.in/r-and-r-policies/7504/r&r-policy-2017

Village Development Advisory Committee (VDAC). Establishment of Public Information Centres (PICs) to maintain transparency and keep PAFs informed, where PAFs can register their grievances and R&R staff will assist them.

- c. **Social Impact Assessment (SIA):** Whenever it is desired to undertake land acquisition for a new project or expansion of an existing project, a Social Impact Assessment (SIA) as per provisions of RFCT LARR Act, 2013 will be carried out.
- d. **Social Impact Evaluation (SIE):** After the completion of implementation of R&R Plan / Scheme to evaluate the impact of the R&R program, by an independent agency.
- e. **Effective monitoring of R&R measures:** Effective and timely supervision, internal and external monitoring and evaluation of implementation of the R&R measures, specific R&R conditions / stipulations as part of any clearances eg. MOEF clearance, SIA clearance, SPCB clearance / consent etc and also the stipulations of other Ministries.
- f. **Budget for R&R:** Implementation of R&R Plan / Scheme is considered as part of the project activity and Budget for R&R / Scheme will be part of capital cost of the project.

Again, on paper, a lot many commitments have been made and policy provisions laid down, that give a picture that all the concerns relating to land acquisition, displacement, livelihood loss, rehabilitation is being taken care of by the project authority. However, as noted during the field visit and interactions with the villages, recorded above, the wide-range of concerns relating to livelihood loss, project-impacts and R&R are simply not being factored in or addressed by the NTPC, over the years. There has been no attempt to undertake an SIA and assess the kinds of impacts, no effective evaluation and monitoring and no functional mechanisms like the Village Development Advisory Committee (VDAC) and Public Information Centres (PICs) to even remotely register and address the grievances of the affected families.

7. Conclusion:

The entire fact situation reveals that the EAC did not ensure due diligence and application of mind and limited its discretion and appraisal to whatever information the Proponent has submitted. On many of the issues such as Coal linkage, Ambient Air Quality, Hydro-geological impacts, Cumulative impacts, social impacts etc the EAC has not cross-verified the information furnished by PP, nor has it even conducted a site visit before recommending clearance.

Perusal of additional information sought by the EAC in its 45th meeting vis-à-vis the conditions prescribed while recommending the environmental clearance in the 46th meeting reveals that the EAC has not undertaken appraisal on the many of the components of EIA study such as impact on agricultural fields, water quality of ash pond vis-à-vis the river water quality, occupational and epidemic health studies, temperature rise, location of the ash pond, coal quality and the ash content in the same, etc., on which additional information was sought by the EAC itself in the 45th meeting. Thus, EAC has not questioned the PP even on the lack of adequate information it sought from the PP.

Infact the speed with which the EAC recommended clearance itself is quite notable. While the Expert Committee deferred the project for want of necessary details and information in its 45th

meeting held on 29th-30th Oct, 2015, it recommended TSTPP for grant of Environmental Clearance within a month's time in its 46th meeting held on 26th-27th Nov, 2015. A recent study¹²⁸ by the Vidhi Centre for Legal Policy reveals that Thermal Projects took amongst the shortest period for recommendation of EAC. i.e. an average of 28 days. In the instant case, MoEF & CC as well, did not make an independent and rational assessment, as to whether the Project merited an environment clearance in the prevailing circumstances.

The National Green Tribunal and Supreme Court have on many occasions directed the MoEF & CC to give reasons in support of its decision to recommend Environmental Clearance for any project. The NGT in its Order dt. 16th May, 2013 in Rudresh Naik vs. Goa State Coastal Zone Management Authority¹²⁹ held that:

“It is a settled rule of law that administrative authorities which are dealing with the rights of the parties and are passing orders which will have civil consequences, must record appropriate reasons in support of their decisions. Certainly, these reasons must not be like judgments of courts, but they must provide an insight into the thinking process of the authority as to for what reasons it accepted or rejected the request of the applicant”.

In its Judgment dt. 16th May, 2013th, the Hon'ble National Green Tribunal in Rudresh Naik Vs. Goa State Coastal Zone Management Authority¹³⁰ observed as follows:

45) Thus, the appraisal of the project requires not only evaluation, but also estimation of works in order to make an assessment or determination of the same. The process of appraisal would certainly require application of mind independently and make evaluation of the available materials to make an approval to regulatory authority to grant EC or place before the regulatory authority with the report to refuse EC. The notification makes it mandatory not only a scrutiny but also a detailed scrutiny to the EAC or SLAEC of the application and other documents like final EIA report, outcome of the public consultation including public hearing proceedings submitted by the Project Proponent. The word 'scrutiny' should have been employed in the Notification by the Legislature with clear intention that a critical observation or examination of all the available materials before submitting a recommendation to the regulatory authority. The Notification requires a categorical recommendation from the EAC or SLEAC on conclusion of the proceedings of appraisal. Hence, the appraisal cannot be a mere formality or a simple ritual to pass on.

It could therefore be stated that in the instant case as well, neither EAC nor MoEF & CC have recorded adequate and compelling reasons to b) approve the incomplete EIA in a haste b) grant environmental clearance.

¹²⁸ Sinha, Debadityo and Mehta, Dhvani (June, 2017) Report by the Vidhi Centre for Legal Policy: Environmental clearances and monitoring in India: Report card for the Ministry Of Environment, Forests and Climate Change Available at: <https://vidhilegalpolicy.in/reports/2017/6/30/environmental-clearances-and-monitoring-in-india-report-card-for-the-ministry-of-environment-forest-and-climate-change>

¹²⁹ Rudresh Naik Vs. Goa State Coastal Zone Management Authority. [2013 ALL (I) NGT Reporter(2) (Delhi) 47]

¹³⁰ <https://indiankanoon.org/doc/24175247/>

Chronology of Key Developments:

Telangana Super Thermal Power Project, Phase-I (2 x 800MW), Ramagundam

Date	Key Developments
1975	National Thermal Power Corporation (NTPC) Limited formed and incorporated as a fully Govt. owned company under the Union Power Ministry.
1978	Establishment of 2,600 MW (Old) Ramagundam Thermal Power Plant by NTPC.
1983	Ramagundam Thermal Power Plant begins production of power.
18 th Nov, 2009	MoEF & CC issues Notification on National Ambient Air Quality Standards (NAAQS)
19 th April, 2012	MoEF & CC issues a Notification clearly directing that unless firm coal linkage is provided, proposal for coal-fired TPPs shall not be considered.
2 nd Jan, 2014	MoEF & CC issues a Notification regarding use of coal with ash content not exceeding thirty-four per cent, on quarterly average basis.
2014	Andhra Pradesh State Reorganization Act passed (deciding <i>interalia</i> , that NTPC shall establish 4,000 MW power capacity in Telangana, after establishing necessary coal linkage)
Aug, 2014	NTPC- Project Proponent (PP) submits proposal to the MoEF & CC for grant of Terms of Reference (ToR) for preparation of EIA for 2 X 660 MW Telangana Super Thermal Power Project (TSTPP)
16 th Sep, 2014.	MoEF & CC grants ToR for 2 X 660 MW TSTPP for preparation of EIA and EMP.
Nov, 2014	NTPC submits revised proposal to the MoEF & CC for grant of ToR for preparation of EIA for 2 X 800 MW TSTPP
12 th Dec, 2014	MoEF & CC grants ToR for 2 X 800 MW Telangana Super Thermal Power Project (TSTPP) for preparation of EIA and EMP.
Dec, 2014 to Feb, 2015	Baseline data was monitored and collected for EIA Study of the TSTPP
27 th March, 2015	Vimta Labs Ltd., a Hyd-based Consultant, which was entrusted the task of carrying out the EIA by TSGENCO, reportedly submits EIA Report to NTPC
31 st March, 2015	Govt. of Telangana accords permission for drawl of 60 cusecs (2 TMC) water throughout the year from Sreepada Yellampalli Project for the Telangana Super Thermal Power Project, Phase-I (2 x 800MW), Ramagundam
15 th April, 2015	NTPC submits the Draft EIA to the Telangana State Pollution Control Board (TSPCB) with a request to conduct the Public Hearing for TSTPP.
23 rd – 24 th April, 2015	Regional Office, Ramagundem, TSPCB issues a paper notification in Telugu dailies “Sakshi”, “Andhra Jyoti” and English Daily “Deccan Chronicle” regarding the proposed public hearing on 23 rd May, 2015.
23 rd May, 2015	Public Hearing for the 2 X 800 MW RTPP was held by PCB and proceedings of the same were forwarded to MoEF & CC on
10 th Sep, 2015	Ministry of Coal allots Mandakini-B Coal mine in Orissa to TSTPP

21 st Sep, 2015	Ministry of Coal accords in-principle approval for grant of tapering linkage from Coal India Limited, for TSTPP as an exceptional case, till the operation of Mandakini-B Coal block.
16 th Oct, 2015	Fertilizer Corporation of India, situated within 10 kms radius of proposed TSTPP was granted EC by MoEF & CC
29 th – 30 th Oct, 2015	45 th meeting of EAC was held wherein EAC noted that further details and information relating to TSTPP need to be furnished by NTPC and therefore deferred the project for recommendation of the Environmental Clearance.
6 th Nov 2015	Coal India Limited allots tapering coal linkage for TSTPP from Western Coalfields Ltd. (WCL)
26 th – 27 th Nov, 2015	46 th meeting of EAC was held wherein EAC recommends TSTPP for grant of Environmental Clearance.
7 th Dec, 2015	MoEF & CC issues a Notification prescribing emission standards and water consumption standards for new thermal plants to be installed from 1 st Jan, 2017.
20 th January, 2016	MoEF & CC grants Conditional Environmental Clearance (EC) to TSTPP for construction of a 1,600 MW plant (with 2 units of 800 MW capacity each), with a 7 year validity period.
12 th Feb, 2016	The Guardian publishes news on a scientific study presented at the American Association for Advancement of Science concluding that more than 1.4 million persons died in 2013 due to air pollution in India.
17 th Feb, 2016	One Uma Maheshwar Dahagama, whose farmlands are situated within 13 kms radius of the TSTPP files Appeal No. 46/2016 before NGT challenging the legality of the EC granted on 20 th Jan, 2016.
11 th April, 2016	The 2 X 800 TSTPP site was inspected by the Environmental Engineer, Regional office, TSPCB, Ramagundam
20 th April, 2016	TSPCB issues Consent for Establishment to the 2 X 800 TSTPP, under Sec 25 of Water Act and Sec. 21 of Air Act, as per the recommendations of the CFE Committee of the Board.
27 th June, 2016	NTPC files Reply Statement to Appeal No. 46/2016, seeking dismissal of the Appeal.
Sep, 2016	MoEF & CC files its Response to Appeal No. 46/2016, defending the validity and legality of the EC granted on 20 th Jan, 2016.
26 th Sep, 2016	PCB files its Response to Appeal No. 46/2016, stating that the Public Hearing and CFE process was in compliance with law and seeking dismissal of the Appeal.
1 st Oct, 2016	Heavy Metal analysis certificate issued by EPTRI (after the appraisal of the project by EAC and 10 months after the grant of EC).
8 th Nov, 2016	Radio Activity Test Certificate Issued by the Dept. of Atomic Energy (after the appraisal of the project by EAC and 11 months after the grant of EC).
10 th Nov, 2016	NTPC submits 6 monthly compliance report for the period April-Sep, 2016 (for the EC granted on 20 th Jan, 2016).
6 th Feb, 2017	NTPC files a detailed Reply to the Rejoinder filed by the Appellants.
March, 2017	Appellants file a detailed Affidavit in response to the (Additional) Reply of NTPC dt. 6 th Feb, 2017.

Construction of the coal stock yard for the new 2 x 800 RTPP (Sep' 2017)



Farmer Mondaiyya stands in the backdrop of the massive NTPC reservoir to which he lost his small parcel of land 40 years ago !



A late night interaction in the dalit basti of Kazipali village: Grievances galore of health impacts, no jobs, pollution

Massive untreated municipal waste from NTPC township being let into the nearby nallah, connecting with Godavari



The 3 crore investment in ETP for treating waste waters from the NTPC township gone waste as it remains dysfunctional since 10 years !



9. Kothagudem Thermal Power Station (KTPS)

Socio-Environmental Governance Issues and Gaps

I. Brief Background:

Kothagudem Thermal Power Plant (KTPS), at Paloncha, Dist. Kothagudem, operated by the TSGENCO is a composite project of multiple units constructed since mid 1960's including 4 x 60 MW, 4 x 120 MW, 2 x 250 MW, 1 x 500 MW units, totaling upto 1,720 MW capacity. Beyond this capacity, the latest in the series is a 1 x 800 MW plant that received clearance from MoEF in July, 2015 and construction is nearing completion. This chapter attempts an overview of the environmental and social issues associated with this Project and in particular, the manner of regulatory governance by various monitoring authorities i.e. the MoEF & CC, EAC, PCB.

The study is based on a perusal of the Project Proposal, Final EIA Report of the Project submitted by the Project Proponent to the MoEF, correspondence between the PP and various authorities, submissions made by various stakeholders to the MoEF, Minutes of EAC meetings, clearance by MoEF, guidelines and notifications of MoEF, monitoring report of MoEF, consent by PCB, notices issued by PCB, media reports etc. The study was further informed by detailed interaction with civil society activists and independent experts who have been working on issues concerning the Project.

A field visit to villages Suraram and Pullaigudem affected by the KTPS as well as the project site, ash ponds, natural streams stated to be polluted was also undertaken in Sep, 2017 to understand the concerns and issues from the ground. Notably, the KTPS plant is situated in the scheduled adivasi area, as per the Constitution. The visit included extensive discussions with the villagers. A visit was also made to the regional office of the PCB, Kothagudem to meet the Environmental Engineer and get his version as well, but he was not present at office on that day and when contacted over phone for a meeting, said that RTI can be filed, if needed.

2. Project Fact File:

Sl. No.	Item	Details
1.	Name of the Project	Kothagudem Thermal Power Station (KTPS)
2.	Location (Village, Tehsil, Dist)	Tehsil Paloncha, District Bhadradi Kothagudem
3.	Capacity (total and unit-wise)	Cumulative Capacity of Old Units = 1,720 MW [4 x 60 MW + 4 x 120 MW + 2 x 250 MW + 1x 500 MW] New Unit = 1 x 800 MW
4.	Project Cost	Rs. 5,291.15 crores
5.	Project Proponent	TSGENCO, Govt. of Telangana
6.	Technology Type	Super Critical Coal-Fired Thermal Power Plant (New Plant) Other Old Units are Sub Critical Technology.
7.	EIA Consultant	Ramky Enviro Engineers Ltd
8.	Water Source	Kinnerasani Reservoir and River Godavari
9.	Total Land	As per EIA, total project land is 3,495 acres, of which 3035 acres is the land utilized by the 1,720 MW units and the 800 MW new unit requires 460 acres.

	Requirement	While PP claimed that 230 acres is available within project land and 230 acres had to be acquired for ash pond, MoEF in its clearance directed that ash pond also must be accommodated in existing land.
10.	Status of Clearances and Consents	<p>Public Hearing was held on 25th July, 2014.</p> <p>Recommendation for Wild Life Clearance was issued on 25th Jan, 2015 by the Standing Committee of the National Board for Wild Life (NBWL) in its 32nd meeting.</p> <p>MoEF & CC granted Conditional Environmental Clearance (EC) to the 800 MW Unit on 16th July, 2015</p> <p>Consent to Operate for the Old Units and Phase V (2 X 250) MW was granted on 12th Jan, 2017 by PCB.</p>

3. Project Summary:

The Kothagudem Thermal Power Station (KTPS) is one of the oldest functioning coal-based power plants situated in Telangana, where the first units were established as early as in 1966. Until recently, the Plant had a cumulative installed capacity of 1,720 MW including 4 x 60 MW Units (1966-67), 4 x 120 MW (1974-78), 2 x 250 MW (1997-98) and 1 x 500 MW (2011) units. These old units were renovated and modernized in 2005, at a total investment of Rs. 604 crores. In July, 2015, MoEF granted clearance to the newly proposed 1x800 MW unit, situated at the same place.

On 5th Jan, 2007, MoEF, granted environmental clearance for the expansion of Stage VI (1 x 500 MW) Unit of KTPS by the then APGENCO, subject to the implementation of environmental conditions and safeguards. This Unit was commissioned on 23rd Oct, 2011 within the existing complex. The land requirement for Stage VI was 89.7 ha which includes common area of Stage V. As per the EC, water requirement for the stage VI is estimated as 34920 m^3/d , which is being met from the Kinnarsani Reservoir. Coal is being transported through rail from the mines of Rudrampur, Manuguru, Manchiryal, SCCL, etc. After bifurcation of the A.P. State, the above project was taken over by the Telangana State Power Generation Corporation Ltd.

TSGENCO, the project proponent for the 1x800 MW thermal plant, applied to the Union Ministry of Environment and Forests, seeking environmental and wildlife clearances, which the PP claimed was necessary in the light of the pressing energy requirements of the State. The EIA Report submitted to MoEF justifies the location of the new Plant within the same premises as the old units, since infrastructural facilities such as land, water transport arrangements from Godavari, railway line, roads etc. are available as part of KTPS complex and no new infrastructure facilities are required for expansion unit, except acquisition of 230 Acres (93.1 Ha) of land for ash pond area.

Land Availability:

The PP has stated in the EIA that total land required for the entire KTPS is 3,495 acres of which 3,035 acres is the land utilized by the 1,720 MW units and the new Unit would require 460 acres. The break up given for the new Unit is as follows: land required for the Plant area (70 acres), Coal Handling & railway siding (70 acres), Green Belt (69 acres), Colony (Nil) and Roads, Raw water

reservoir, drains (21 acres) would be sourced from within the existing plant area. Additional land of 230 acres would be needed for the ash pond, over and above the 1,180 acres of land where ash ponds of current units are located. However, MoEF while issuing clearance directed that “*The existing ash ponds shall be utilized for disposal of ash generated from the proposed expansion unit and no additional land shall be acquired for ash pond*”. (EC supra)

Water:

The Environment clearance states that water requirement for the new Unit is 0.62 TMC. Permission for drawl of water 25 cusecs of water from river Godavari throughout the year has been obtained from Irrigation & CAD Department, Govt. of Telangana, through existing pipeline laid from Godavari River near Burgampahad, Bhadrachalam Mandal, Khammam District.

Coal:

The Environment clearance states that coal requirement of 3.95 MTPA (based on GCV of 3700 kcal/kg) will be met from SCCL with sulphur and ash content of 0.62% and 38% respectively. MoU was entered into between M/s SCCL and TSGENCO on 21st Jan 2015 for supply of 4.0 MTPA coal to the proposed 1x800 MW Unit. Coal transportation will be through Rail. [Originally, the requirement of coal for the project was sought to be addressed from the Suliary Belwar Coal Block, Madhya Pradesh. However, since the Supreme Court by its Order dt. 24th Aug and 24th Sep, 2014 cancelled all coal blocks including the Suliary Block, the TSGENCO decided to enter into an MoU with SCL for obtaining 100% indigenous coal].

4. Wildlife Clearance:

This Kinnerasani Wildlife Sanctuary, on the Right Bank of the Godavari River, extends over an area of 63,540.78 Ha. It derives its name from the river Kinnerasani, which bisects the sanctuary and ultimately drains into the Godavari River. EIA states that the Suraram Reserve Forest is located at a distance of 1.5 Km and Kinnerasani Wildlife Sanctuary spread over an area of 635.40 km² at a distance of 1.2 kms from the Project site. The Kinnerasani river is located at a distance of 3 km and Mureru River at a distance of about 3.2 km from project site.

TSGENCO entrusted the task of conducting a study of the impact of the Project on the Kinnerasani Wildlife sanctuary to the Environment Protection Training and Research Institute (EPTRI). On 2nd Sep, 2014, the Principal Secretary, Govt. of Telangana wrote to the Secretary of the National Board for Wild Life (NBWL) for an expeditious grant of Wild Life Clearance by the NBWL. Thereafter, the recommendation for Wild Life Clearance was issued on 25th Jan, 2015 by the Standing Committee of NBWL in its 32nd meeting.

5. Environmental Clearance:

In response to the proposal submitted by TSGENCO, the Project Proponent (PP), the MoEF & CC granted Terms of Reference (ToR) on 26th Sep, 2012 for preparation of EIA for the 1 X 800 MW Thermal Power Project. Immediately thereafter, the PP entrusted the task of carrying out EIA to Ramky Enviro Engineers Ltd., a Hyd-based Consultant, which collected baseline data between Sep to Nov, 2012. The Baseline studies for the ‘Rapid EIA’ (Pg. 92 of EIA Report) addressed the environmental components of meteorological conditions, ambient air quality, noise levels, water quality (surface + ground water), soil quality and socio-economic studies.

The household survey, the PP claims, was conducted by M/s CMSR, through a structured questionnaire that covered the household level socio-economic profile. EIA stated that the surveyed locations in general are inhabited by disadvantaged communities, who are officially categorized as the Scheduled Tribes (STs), the Scheduled Castes (SCs) and Backward Castes (BCs). The STs and BCs are the largest category of castes in the study area accounting for 53.71% and 24.07% of the households; the SCs and OBCs make up 12.59% and 9.63% of the households respectively.

Subsequently, PP submitted the Draft EIA to the TSPCB, with a request to conduct the Public Hearing. The Regional Office of TSPCB, Kothagudem, issued a notification in Telugu daily *Sakshi* and English daily *The Hindu* initially on 16th Feb, 2014 for conduct of hearing on 19th March, 2014. Subsequently, a notification dt. 14th March, 2014 was issued to postpone hearing to 21st May, 2014. Thereafter, another notification was issued on 19th March, 2014 to conduct hearing on 21st May, 2014. Yet another notification was issued on 23rd June for conducting hearing on 25th July, 2014, the date on which hearing was actually and finally held. Notably, the public hearing was held barely 2 months after the new state Telangana was formed and barely 2 months before expiry of the ToR (2 years from date of issuance) i.e. by 25th sep, 2014.

5.I The Public Hearing:

The Public Hearing was held on 25th July, 2014 and the Panel was chaired by Mr. Srinivas Sri Naresh, District Collector and District Magistrate, Khammam, with Mr. M. Narayana, environmental engineer, APPCB, Kothagudem, as member. The Public Hearing Report mentions that around 3,000 people were present. The Executive Engineer of APPCB stated in the hearing that 991¹³¹ representations were received from various 'societies and people'. The Public Hearing Report does not make a person-wise list of the deponents (public), with a summary of the testimony. Infact, it lists the testimonies of only 14 people, which includes 1 MP, 4 MLAs, 1 Ex-Minister, 1 Ex MLA, 1 representative each of TDP, CPI, Congress, BJP, TRS, YSR-CP and the following two non-political representatives.

Mr. B. Suresh, ST Association – Paloncha, who stated that “*their block falls under agency area, where the tribes are guaranteed with due rights and urged to ensure implementation of their rights as per ST Act and further requested to consider all means to benefit the Agency area*”

Mr. T. Prabhu Kumar, NGO –Manasa Academy, Paloncha who “*urged to address all their concerns. People concerned about the alleged menace of fly ash pollution and denial of jobs to the local youths in the Stage-VI. The only thing the peasants to have is land. They have to be made partners in development and should be provided with all basic amenities*”.

The Report summarizes the opinion of the public, in the hearing, as follows:

“The public while expressing their views stated that they are not against the project, but repeatedly demanded to implement CSR policy in the affected villages of KTPS complex, welfare measures such as construction of super specialty hospital, uninterrupted 24 hours power supply, drinking water facilities, providing employment to the local people, additional pollution control measures to reduce pollution levels in surrounding areas. They

¹³¹ Page 3, Report of Public Hearing dt. 25th July, 2017, held for the 1 X 800 MW Unit of KTPS. Available at: <http://environmentclearance.nic.in/writereaddata/Public%20Hearing/19092014TRDTVY26Publichearingandactionplan.pdf>

requested firm assurance/written commitment on their demands to allow the public hearing after consultations". (see Public Hearing Report, supra)

As noted above, most of the recorded speakers were elected political party representatives, some of who also raised crucial concerns, although, across parties, most of them were supportive of the Plant. The key issues raised by them included:

- Permanent employment for persons losing land
- Insurance cover for victims of accidents during project construction
- Ensuring the rights of adivasis on the scheduled I/70 areas
- Steps to reduce emissions
- Regularization of services of contract workers (since 1962)
- Employment to the local youth
- Upgradation of health services in the area to address health impacts and reduce financial burden on people going to private doctors.
- Green belt development
- Measures to prevent impacts of thermal plant on environment and livelihoods
- Mitigating impacts due to the fly ash
- Uninterrupted power supply
- Increase in CSR fund and activities
- Expansion to be undertaken only after fulfillment of previous promises
- Provision of safe drinking water

5.2 EAC Appraisal Process:

The proposal for the 1 x 800 MW expansion unit was first considered in the **54th Meeting of the reconstituted Expert Appraisal Committee (Thermal) during August 6-7, 2012**¹³², where in the Committee noted that of the 11 operating units with installed capacity of 1,720 MW, some were very old and needed to be phased out. The Committee also observed that fly ash utilization appeared to be poor and the project proponent need to indicate concrete action plan with commitment for efficient fly ash utilization and management. The Committee therefore decided that no additional ash pond can be permitted for the expansion proposal. The Committee also decided that no further expansion besides Stage-VII can be permitted in the power station. Over and above the standard ToRs for undertaking detailed EIA study and preparation of EMP, the Committee prescribed specific ToR including Prior approval from the Standing Committee of the National Board of Wildlife, submission of details of ash pond and action plan for study of heavy metals in the existing ash pond area, status of compliance to the conditions stipulated in EC/NOC of the earlier phases Time schedule for phasing out 60 MW and 120 MW units and Commitment stating that no further expansion and Action plan for carrying out long term study of radio activity, heavy metals from coal to be used.

The matter was further discussed in the **32nd meet of Expert Appraisal Committee (Thermal Power) held on 23rd-24th Feb, 2015**¹³³, wherein the EAC took cognizance of the certified compliance report of the MoEF's RO for the monitoring done on 18th and 19th Nov, 2014 for

¹³² http://environmentclearance.nic.in/writereaddata/Form-1A/Minutes/3%20_54thMinutes.pdf (Pgs 15-17)

¹³³ http://environmentclearance.nic.in/writereaddata/Form-1A/Minutes/0_0_31123123012101MoM32ndEACT23-24Feb2015.pdf (Pgs 12-15)

compliance of EC conditions by the existing Units. Inter alia, the PP submitted that, “ash pond water is being discharged in the nearby agriculture fields after decantation of ash water as per the request of the farmers only as a special case particularly during drought period. TSS of the decanted ash water is well within the statutory limits”.

The EAC also took note that “the Public hearing/public consultation was conducted by the State Pollution Control Board on 25.07.2014. It was noted that the issues raised in the public hearing include regularization of the services of outsourcing employees, employment to locals, compensation to land losers, uninterrupted power supply in the Paloncha Town, CSR activities, taking back of 409 Nos. of ST casual labourers (EPF issue), justice for the tribal people in terms of jobs, welfare etc. The Committee discussed the issues raised in Public Hearing, the responses made by Project Proponent including the action plan for compliance”.

The Committee **deferred** the proposal, seeking Action plan along with MoUs etc. for fly ash utilization, commitment for no additional land for ash dyke and rehabilitation of the existing ash dykes, Drainage pattern of the area, Commitment for STP with timeline, Details of existing effluent treatment, AAQ data, annual average and January-February, 2015 data along with calibration certificate and Commitment for phasing out all the old units of 60 and 120 MW by 2018-19.

Based on further information furnished by the PP, EAC considered the proposal in its 36th Meeting on 19th - 20th May, 2015¹³⁴ and **recommended the project for environmental clearance** subject to stipulation of the following additional specific conditions:

- I. The TSPCB and Ministry's R.O. shall jointly monitor all the existing Units of KTPS on a six monthly basis till they are satisfied with the compliance. Further, TSPCB shall only accord CTO for Stage-VII after all the existing Units of KTPS are in total compliance to the norms.
- II. As committed, all the 4x60 MW and 4x120 MW units of Stages I-IV shall be phased out latest by the end of 2019.
- III. As committed, the existing ash ponds shall be utilized for disposal of ash generated from the proposed expansion unit and also no additional land shall be acquired for ash pond.
- IV. As committed, the construction of STP shall be taken up on priority basis immediately and shall be commissioned latest by the end of April, 2016
- V. Latest authenticated satellite imagery shall be submitted on an annual basis to monitor the alterations of the area.
- VI. The Sulphur and ash content of coal shall not exceed 0.62% and 38 % respectively. In case of variation of quality at any point of time, fresh reference shall be made to the Ministry for suitable amendments to the environmental clearance.
- VII. Fly ash utilization notification of MoEF&CC should be followed. Explore the possibility of setting up cement plant and enhance the brick manufacturing capacity.
- VIII. The ground water quality shall be monitored in and around all the ash ponds.
- IX. To mitigate dust pollution, a thick green belt should be developed around the plant and Ash dyke area.
- X. Health Surveys of the people living in 10 sq. km. radius of the plant complex should be carried out annually with respect to respiratory disorders.

¹³⁴ http://environmentclearance.nic.in/writereaddata/Form-1A/Minutes/0_0_6111912471291MoM36thEACT19-20May2015.pdf (Pgs 5-11)

XI. As committed, a minimum amount of Rs. 21.16 Crores shall be earmarked as capital cost for CSR activities and Rs. 4.23 Crores/annum or the amount as per the CSR policy of GOI whichever is higher shall be earmarked as recurring cost per annum till the operation of the plant.

5.3 Clearance issued by MoEF:

Based on the recommendations by the EAC (T) in its 36th Meeting held on 19th - 20th May, 2015, the MoEF granted a conditional clearance on 16th July, 2015¹³⁵. Some of the key specific conditionalities include the following:

- *The TSPCB and Ministry's RO. shall jointly monitor all the existing units of KTPS on a six monthly basis till they are satisfied with the compliance. Further, TSPCB shall only accord CTO for Stage-VII, after all existing units of KTPS are in total compliance to the norms.*
- *As committed, all the 4 x 60 MW and 4 x 120 MW units of Stages I-IV shall be phased out latest by the end of 2019.*
- *As committed, the construction of STP shall be taken up on priority basis immediately and shall be commissioned latest by the end of April, 2016*
- *Health Surveys of the people living in 10 sq. km. radius of the plant complex should be carried out annually with respect to respiratory disorders.*
- *An Environmental cell comprising of at least one expert in environmental science / engineering, ecology, occupational health and social science shall be created preferably at the project site itself and shall be headed by an officer of appropriate superiority and qualification. It shall be ensured that the Head of the Cell shall directly report to the Head of the Plant who would be accountable for implementation of environmental regulations and social impact improvement/mitigation measures.*
- *A long term study of radio activity and heavy metals contents on coal to be used shall be carried out through a reputed institute and results thereof analyzed every two year and reported along with monitoring reports. Thereafter mechanism for an in-built continuous monitoring for radio activity and heavy metals in coal and fly ash (including bottom) shall be put in place.*
- *No water bodies including natural drainage system in the area shall be disturbed due to activities associated with the setting up / operation of the power plant.*
- *As committed, the existing ash ponds shall be utilized for disposal of ash generated from the proposed expansion unit and also no additional land shall be acquired for ash pond.*
- *To mitigate dust pollution, a thick green plant belt should be developed around the plant and Ash dyke area.*
- *For proper and periodic monitoring of CSR activities, a CSR committee or a Social Audit committee or a suitable credible external agency shall be appointed. CSR activities shall also be evaluated by an independent external agency. This evaluation shall be both concurrent and final.*
- *Vision document specifying prospective plan for the site shall be formulated and submitted to the Regional Office of the Ministry within six months.*

¹³⁵ <http://environmentclearance.nic.in/writereaddata/Form-1A/EC/07172015124-2012.pdf>

6. Monitoring by the Regional office of MoEF:

On 18th and 19th Nov, 2014, Dr. M.T. Karuppiyah, Scientist-C; of MoEF & CC Regional Office (South Eastern Zone) - Chennai, visited the KTPS project site and submitted a certified compliance report dated 28th Nov, 2014 to the MoEF, considering the proposed expansion of 1 x 800 MW Thermal Power Plant at KTPS. This observations of MoEF' RO¹³⁶ as stated below were with respect to the Stage VI (1 x 500 MW) Unit of KTPS.

“Remarks & recommendation for corrective action:

PA has obtained valid Consent from the APPCS. The observed non-compliances, which interalia include the following:

- 1. STP has not been installed - Condition No. i.*
- 2. As per the EC no land is earmarked for ash pond. However around 70% of fly ash / bottom ash generated from the Stage VI is being disposed off in the form of slurry in the ash pond earmarked for Stage-V. Fly ash utilization plan has not been effectively implemented as per the stipulation rather it is being disposed off in the ash pond earmarked to the Stage V. Further, ash pond water is being discharged to the nearby agriculture field without treatment - Condition No. (i) & (vii).*
- 3. Frequency of AAQ Monitoring & parameters have not been conformed with the CPCS guidelines - Condition No. xiv.*
- 4. Hard copy of six monthly monitoring reports are being sent to the RO of MoEF & CC regularly. However, six monthly monitoring report needs to be submitted both hard and soft copies along with monitored data. The same needs to be uploaded in the website of the company and periodically updated - Condition No. xvii.*
- 5. Public Liability Insurance has not been obtained - Condition No.7.*

Other observations:

- 1. Court cases: PA has submitted that no court case filed / under progress for the past three years.*
- 2. With regard to issuance of Show cause Notice I Closure direction: PA has submitted that no Show cause Notice / Closure direction was issued over last three years.*
- 3. Housekeeping: It was found satisfactory.*
- 4. CSR activities & Occupational health surveillance has been implemented and records are maintained”.*

7. Monitoring by the Pollution Control Board (PCB):

On 3rd Dec, 2014, the Telangana PCB wrote¹³⁷ to the Chairman and MD of TSGENCO, based on complaints made before the Lok Ayukta and the High Court pointing to serious implications of air and water pollution and seeking refusal of permissions to the expansion of KTPS. The letter is self-explanatory and the entire text of the entire letter is reproduced below:

¹³⁶ <http://environmentclearance.nic.in/writereaddata/online/EC/03022015UC0QCYQKKTPS-FinalUploadedforEC.pdf> (Pg 27)

¹³⁷ http://environmentclearance.nic.in/writereaddata/Online/EDS/0_0_28_May_2015_1853436901KTPSVIuploadedfileason28-05-2015toMOEF.pdf (Pgs 7-8)

Dear Sri Balchakur Rao Garu,

Sub: M/s Kothagudem Thermal Power Stations ie., O&M plant & Vth stage plant, Paloncha, Khammam District - Non compliance of the Board Directions - Reg

Handwritten notes:
1. E/C/28/11/12

I invite your attention towards the pollution caused by M/s Kothagudem Thermal Power Stations i.e, O&M Plant and Vth stage plant located at Paloncha, Khammam District.

It has come to the notice of the Pollution Control Board that Sri D Ramesh, Pandurangapuram (V), Paloncha (M), Khammam District has filed a complaint No. 1144/2014/B1 dated 18.03.2014 before the Institution of Lokayukta, Hyderabad against KTPS alleging that the industries are disposing ash into the River Kinnerasani and have objected for the establishment of new power station ie., stage-VII.

Sri Balineni Satyanarayana, R/o Somulagudem (V), Paloncha (M), Khammam District has also filed PIL No. 224/2014 on 26.08.2014 before the Hon'ble High Court against the industries requesting to take action for not complying with the directions issued by the Board.

In this regard, the Board officials have inspected the industries on 23.06.2014, 24.06.2014 & 25.06.2014 to verify the status of compliance of the directions issued and the following observations were made :

1. Abnormal stack emissions from coal fired boilers ranging from 233.82 to 1560 mg/Nm³ (standard - 115 mg/Nm³).
2. Discharge of ash pond effluents into the Kinnarasani river with TSS value ranging from 3600 to 15200 mg/l as against the Board standard of 100 mg/l.
3. Not provided Continuous Ambient Air Quality Monitoring (CAAQM) station to M/s. KTPS Vth stage and provided only one Continuous Ambient Air Quality Monitoring (CAAQM) station against 3 stations to M/s. KTPS (O&M). Existing station is also not connected to the Board's website.
4. Flying of ash on to the surrounding villages, thereby causing lot of inconvenience to the people. Ambient air quality monitoring conducted at Suraram (V) on 24.06.2014, the SPM values are ranging from 146 ug/m³ to 1080 ug/m³ (Standard - 100 ug/m³).

INWARD No. 1525

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discrepancy between Boards stack monitoring data and website connectivity data of online stack monitoring instruments. The values recorded by online monitors are much less than the values monitored by the Board.

6. Utilization of flyash was observed to be very less and huge quantity of ash is being discharged into the ponds.
7. Water sprinklers are not provided at coal storage yard for controlling fugitive emissions.

The issue was reviewed by the Task Force committee during the meeting held on 30.10.2014 and the committee has recommended the following :

1. The industry shall submit an action plan within a week towards the compliance of the Board directions as mentioned above.
2. The industry shall immediately arrest the flyash discharges into Kinnarasani river.
3. The Board shall forfeit the Bank Guarantee of Rs. 5.0 Lakhs submitted earlier by M/s KTPS (O&M) for non-compliance of the Board directions.
4. The industry shall also submit a fresh BG of Rs. 25 lakhs each towards the compliance of the Board directions.

Based on the recommendations of the Committee, the Board has issued directions to the industries. Copies of the orders are enclosed.

I request you to kindly issue necessary instructions to the concerned to ensure compliance of the directions issued by the Board.

The Chairman and MD of TSGENCO, wrote back to the PCB on 7th March, 2015¹³⁸ with the following response and an 'Action Plan'.

I invite your kind attention to the D.O letter cited, wherein it was informed that KTPS Stages-I to IV & KTPS Stage-V are not complying the Board directions. The issue was reviewed with Station Heads and strict instructions are issued to take steps to comply with board directions. They were also instructed to adhere to the action plan finalized in the meeting. The same is enclosed for your reference.

Further, concerned station heads are instructed for submission of Bank Guarantee of Rs.25 lakhs each for KTPS Stages-I to IV & KTPS Stage-V towards compliance of board directions before Dt: 28.02.2015. The Station Heads will provide the required BGs shortly.

It is also requested to issue consent for operation of KTPS (I to IV Stages)- 720MW power plant which is pending with TSPCB for the period from Dt: 01.05.2013 to Dt: 30.04.2016 and also for KTPS-V (2x250 MW) from 01.10.2013 to 30.09.2016.

Regards,

Yours sincerely,

¹³⁸ http://environmentclearance.nic.in/writereaddata/Online/EDS/0_0_28_May_2015_1853436901KTPSVIuploadedfilesason28-05-2015toMOEF.pdf (Pgs 17)

Thereafter, on 21st May, 2015, the PCB wrote¹³⁹ to the Member Secretary (Thermal) of MoEF, recommending that the Ministry must consider the proposal for the establishment of 1x800 MW

Lr.No.TSPCB/HYD/KTM/81/CFO/HO/2014

Date:21-05-2015

To

**The Member Secretary (Thermal Power),
MoEF & CC, Indira Paryavaran Bhavan,
Jorbagh, New Delhi – 110003.**

Sir,

Sub: TSGENCO – Kothagudem Thermal Power Station Stage-VII (1 x 800 MW) expansion unit at KTPS complex, Paloncha, Khammam Dist – Environment Clearance pending at MoEF&CC, GOI, New Delhi – Report on the compliance of the Board directions to KTPS stages I to V - Reg.

Ref: D.O.Lr.No.CMD/CE/C/Thermal/SE/C/TCD-I/KTPS/D.No.65/15, dt:21.05.2015.

* * * * *

Kind attention is invited to the subject and the reference cited above. The Chairman and Managing Director, Telangana State Power Generation Corporation Limited has addressed a letter informing various actions taken to comply with the directions issued by the Board and furnished the timelines for complying with the other directions. In the letter it was also requested to send the compliance status to the MoEF & CC, GoI, New Delhi as TSGENCO application for grant of environmental clearance for the proposed expansion unit of 1x800 MW is pending before MoEF & CC. The TSGENCO has submitted commitment for the following:

1. Construction of STP at the residential colony of KTPS complex by end of April, 2016
2. Installation of two (2) more ambient air quality monitoring stations by end of June, 2015.
3. Construction of sedimentation tank with recirculation system for 2x250 MW KTPS –V stage by end of April, 2016.

¹³⁹ http://environmentclearance.nic.in/writereaddata/Online/EDS/0_0_28_May_2015_1853436901KTPSVIIuploadedfilesason28-05-2015toMOEF.pdf (Pgs 25-26)

In this regard, it is to inform that the Board has been regularly reviewing the status of Pollution Control by the existing units of KTPS at Paloncha, (V&M), Khammam District. The Board has reviewed KTPS units and issued directions on 03.12.2014 to ensure compliance of pollution control norms. Subsequently, KTPS took certain specific measures to control the pollution. The KTPS vide Ir.dt:07.03.2015 has submitted time bound action plan to comply the various directions issued by the Board, by April, 2016. The TSPCB satisfied with steps taken and action plan submitted by TSGENCO, has issued Consent for Operation on 20.03.2015 (for stage-V) and 27.03.2015 (for stage I to IV) for a period upto 30.09.2016.

The Board has been regularly monitoring the units to ensure that the industry complies with all the pollution control norms. The timelines for taking up the remaining works as submitted by the TSGENCO vide Ir. dt: 21.05.2015 has been considered by the Board and the TSGENCO has been directed to take necessary steps to ensure the timely completion of the above works.

In view of the above, their application for environmental clearance for the proposed expansion unit of 1X 800 MW, KTPS VII stage at Palwancha , Khammam District may be considered for approval.

Further, the Pollution Control Board issued two Consents for Operation on 12th Jan, 2017 to the KTPS. While Consent Order No. I7082435I08 was issued for the older units of the KTPS, Consent Order No. I70824I432I was issued for the Phase-V of the KTPS (2x250 MW) TPP.

8. OBSERVATIONS:

- a. The Minutes of the 36th Meet of EAC refers to a letter submitted by a civil society group called ERC (EIA Resource Centre), placing on record certain concerns about the KTPS. Some of the key issues pointed out in that letter were:
- Cumulative Impact Assessment Studies not conducted
 - Continuing complaints of air and water pollution, left unattended
 - Non-compliances despite show cause notices by PCB,
 - No impact studies prior to allocation of water from river Godavari
 - No studies on impact of heavy metals
 - Numerous health impacts on human life and livestock.
 - Studies on health impact not conducted by PP
 - PP wrongly relied on 'survey' by Manasa Academy, a small organization run by a local caterer having no wherewithal to conduct health impact surveys for entire region.

The said letter was handed over to the PP by the EAC, which was later responded¹⁴⁰ to by the PP, rejecting virtually all concerns raised in the latter. It is quite intriguing that despite

¹⁴⁰http://environmentclearance.nic.in/writereaddata/Online/EDS/0_0_28_May_2015_1853436901KTPSVIIuploadedfilesason28-05-2015toMOEF.pdf (Pgs 1-6)

the presence of such a document, the EAC, without appraising the contents and concerns by itself, issued recommendation for grant of EC, based on the counter of the PP and the generic reply of PCB. This is in a way indicative of the value that the EAC accords to civil society opinion and concerns. In the light of such serious concerns, the EAC ought to have appointed a Sub-Committee by itself to inquire into the actual status of compliance.

- b. The Report of the Public Hearing reveals that despite the ‘presence’ of people, their participation was very limited and most of the speakers were political party representatives. Many villagers who were spoken to, stated that only those who ‘supported’ the Plant expansion were allowed anywhere near the dais and those who questioned the impacts of the existing units, were not given opportunity to speak / express their views. Mr. Ramesh Rathore, activist of Green Earth Society, a local environmental group that has been documenting the issue and following it up stated that when he, along with many volunteers went to the hearing (apparently to stage a peaceful protest), they were rounded up and direly threatened by the police. Of the 991 representations received, there are no details in the EIA as to how many have been resolved and how many are yet to be resolved.
- c. Despite ‘notices’ being issued by PCB to the KTPS, after complaints by the affected people, local activists point to the inadequate and weak monitoring of the Board, which has resulted in the continuing violations by the PP. They also allege that PCB officials from the Regional Office undertake false metering of the pollution levels and seek to underplay the scale of pollution. A detailed story¹⁴¹ dt. 30th Apr, 2014 in the Down to Earth magazine quotes Mr Narayana, former PCB Environmental Engineer, Khammam, as stating that while the suspended particulate matter should not exceed 150 mg/nc3, at KTPS, it is almost 1,000 mg/nc3. He also stated that between 2007 - 2014, the PCB issued 7 notices to the KTPS for environmental violations, but did not take penal action. This is a clear indicator of how the KTPS and its decision-making as well as executing officials are not being held accountable by the PCB, as per provisions of the Air Act and Water Act. This is continuous abdication of statutory responsibility by PCB and the same being ignored by EAC and MoEF & CC, both.

The role of the PBCs and their lack of autonomy, linked also to the manner of appointment of the Chairpersons and its members, and the limitations of the institution was discussed extensively by the Hon’ble Supreme Court in its Judgement dt. 22nd Sep, 2017 in *Techi Tagi Tara versus Rajendra Singh Bhandari & Ors*¹⁴², wherein amongst other things, the Court also directed that all State Governments, including Govt. of Telangana, must immediately “*frame guidelines or recruitment rules within six months, considering the institutional requirements of the SPCBs and the law laid down by statute, by this Court and as per reports of various Committees and authorities and ensure that suitable professionals and experts are appointed to the SPCBs*”.

13. At this stage, it must be mentioned that apart from the Central Government, there are several authorities that have applied their mind to the issue of appointment of members of the SPCBs. These include Expert Committees such as the Bhattacharya Committee of 1984, the Bellappa Committee of 1990, the Administrative Staff College of India Study of 1994 and a Committee chaired by Prof. M.G.K. Menon. Notwithstanding this, the response of the State

¹⁴¹ <http://www.downtoearth.org.in/coverage/stream-of-ash-44036>

¹⁴² http://supremecourt.gov.in/supremecourt/2016/35789/35789_2016_Judgement_22-Sep-2017.pdf

Governments in appointing professionals and experts to the SPCBs has been remarkably casual. It is this chalta hai attitude that led the NGT to direct the State Governments to consider examining the appointment of the Chairperson and members in the SPCBs and determining whether their appointment deserves continuation or cancellation. Thereafter the NGT gave several guidelines that ought to be followed in making appointments to the SPCBs". [See Annexure]

- d. The Kinnerasani Reservoir was built in the 1960s for providing water to the KTHP and with a claim to irrigate 10,000 acres of farmland in the area. Locals say canal construction is still incomplete and not more than 3,000 acres of water is provided for irrigation. Besides, it is claimed that the lands of people were taken away for the reservoir, without LAQ and R&R in those years. And when approached, KTHP authorities always orally state that the reservoir is not part of the Thermal Project, although it is a matter of record that the reservoir was built also to cater to the water requirements of the KTHP.
- e. The EIA Report itself notes that land around the project area (10 kms radius) is quite fertile, enabling rice cultivation during rainy season and cultivation of jowar, cotton, turmeric, maize, chillies, sugar cane, sesam etc. in other seasons. However, the same is being affected due to pollution from the KTHP. Local farmers have been facing issues of loss of crop productivity and pollution of agricultural lands, inability to grow crops on some chunks, where there is perennial presence of ash water, especially lands in the vicinity of the ash pond. The farmers say that since many years, there is only growth of tall weed-grass, as soil quality has deteriorated. None of the farmers have been compensated for the crop losses. This Report, in the preceding chapters has already dwelt upon the fact that externalities such as impacts on crop productivity and agriculture are often underplayed or ignored by plant authorities and the same appears to be the situation at KTHP as well. PCB seems to have made no attempts to test the loss of soil fertility and direct KTHP to undertake restorative actions.
- f. One of the most serious issues continues to be the severe health impacts that people have been facing including cancer deaths and other diseases such as asthma, respiratory, gynecological problems, back, knee, kidney related ailments. The group of elderly men and women in Suraram village, when spoken to, indicated they had many such grievances, but are having to avail mostly private and occasionally government facilities at Paloncha, as the 'medication' provided in the health camps organized by KTHP is only for general illnesses.

Notably, the list of ailments which were reported to during the survey by the PP include "Malaria, Cancer, Typhoid, Back pain, Body pains, Hypertension, Head ache, Joint/leg/Knee pains Stomach ache, Heart Disease, Diabetes Arthritis, Obesity, Asthma, Epilepsy (fits), Eye/visual/sight problems, Tuberculosis, Handicapped, Ear Problem, Gas trouble, Lungs Problem". The EIA Report itself notes that "with regard to the (health) expenses incurred, the reported households spend on an average Rs 400 per visit with respect to common ailments and Rs 4500 per visit with regard to relatively chronic conditions".¹⁴³

¹⁴³ Page 140-141 (Sec 3.13.5) Final EIA Report submitted by TSGENCO for proposed 1×800 MW Supercritical Coal Based Kothagudem Thermal Power Station (Stage- VII) at Paloncha Village & Tehsil, Khammam District, Telangana. Available at: <http://environmentclearance.nic.in/writereaddata/EIA/180920143AXTGHEYKTHP-EIAEMP.pdf>

- g. In addition to impact on human health, it was also reported by the local villagers that pollution by the Plant has been taking a heavy toll on people's livestock. It was indeed revealing to know that about 120 sheep given by the Govt. recently died in months July-September in Suraram village. People told us that although, these sheep were insured, they were never been compensated for the losses of all these years ! The life-span of goats, sheep, bullocks has drastically reduced, is the claim by numerous villagers ! One Mr. Vasu, a shepherd from the SC community, showed to us his goats which contracted a strange mouth-allergy, feeding into the grass from the polluted soil. He stated that treating each goat, would cost Rs. 2,000! Despite such a serious scenario, there are no effective veterinary services by KTPS and people have to spend on their own!
- h. Despite claims of occupational safety in the EIA Reports, villagers and local activists state that around 4-5 on-site occupational deaths have occurred during the construction phase of the new Unit. Since casual workers are mostly migrants from poorer states like Bihar, Jharkhand, Orissa, the likelihood of distant family members claiming them is rare and scope for PP to suppress these death, higher.
- i. Locals also complain that the quality of water is not potable and that they have to purchase water for drinking and cooking purposes. In its EIA Report, the PP itself has claimed that *"the quality of the water in general is good but few villages reported fluoride content, contamination of industrial effluents in the water"¹⁴⁴*. People allege that CSR funds are not spent on substantive requirements such as potable water, other than occasional health camps.
- j. Villagers state that untreated effluents from the Plant continue to be released into the *Karakavagu* and from there into the Kinnerasani river, causing water pollution and complaints to the PCB and PP have not been responded to effectively.
- k. Neither the full text of EC nor the consent of PCB is available and accessible to all the villagers in Telugu and thus, most or rather none of them are aware of the details of the conditions imposed on the Plant. Besides this being a violation of the EC itself, lack of such crucial information is a clear impediment for people in monitoring the status of compliance of conditions. That there is no empathetic channel of monitoring and grievance redressal available to the affected people, as neither the KTPS nor PCB seem to genuinely care and respond to complaints, was a widely heard complaint.

¹⁴⁴ Page 120 (Sec 3.13.7) of EIA Report of KTPS, *supra*

**A view of the Old KTPS Units, having significant impacts
on the crops in the vicinity**



**Elders and women of Suraram village complain
of a host of health ailments due to pollution from KTPS**



**A view of the massive ash pond of KTPS
and the dense air above it**



KTPS Effluents being let into Boodidhavagu and then into Kinnerasani river



Part – IV: OBSERVATIONS & SUGGESTIONS

(On the Socio-Environmental Governance of TPPs)

10. Observations on Socio-Environmental Governance

Process Related Observations

A) The Environment Impact Assessment (EIA):



At a fundamental level, some of the minimum procedures prescribed in the EIA Notification, 2006 are also not fully followed! Many significant aspects/items mentioned in the ToR are not addressed at all or are addressed inadequately in the EIA Report – such as impact on agriculture, health impacts, cumulative impact assessment, impacts on aquatic life and river ecological flows etc.



Consultants who have been called out by EAC (ex. for plagiarism) must be delisted by the MoEF, but as has been seen in the case of Yadadri TPP, the Consultant, Bhagavati Ana Labs continues to be on the Roll of Accredited Consultants of NABET and prompt action is not taken.



There is clearly no space for affected people and civil society organizations (CSOs) in process of preparation of EIA, at any stage, thereby also limiting the scope of potential inputs that could be part of the Report.



The Quality Council of India (QCI) and National Accreditation Board for Education and Training (one of the Boards of QCI) do not have any representation from environmentalists and civil society, except for certain consumer representation. Infact, QCI was set up in Feb 1996 jointly by the Government of India and the Indian Industry represented by the three apex industry associations i.e. ASSOCHAM, CII and FICCI. The Chairman of QCI is appointed by the Prime Minister on the recommendation of the Industry to the Government.



The entire EIA Report is prepared by a Consultant of the Project Proponent's choice and funded by the PP. There is no full-fledged third-party verification / peer review of the quality and accuracy of the EIA Report and the likelihood of bias is high due to an interested party preparing and funding the EIA.

B) The Public Hearing, Consultation & Monitoring Process:



The entire technocratic process of EIA is unintelligible to the ordinary village citizen and communities who are to be affected and kept informed, remain out of or not meaningfully connected to the public information and consultation process. Even those who are reasonably literate are unable to comprehend the EIA Report, as no assistance to understand the same is extended by any authority.



Except for a brief translation of the executive summary, the full EIA Report is never translated into the vernacular language and provided to the local Panchayats, Gram Sabhas and affected people. Without being provided the entire document and its contents in an understandable manner, the people cannot not have a holistic view of the Project's social, environmental, financial benefits, claims and implications. It is overwhelmingly clear in the case of all projects studied that neither the PP nor the PCB have made appropriate efforts to create

meaningful and holistic awareness of Project and its impacts.



There is no parameter to assess people's level of awareness about the project and its impacts, before the public hearing. It is either presumed that they know enough on the basis of brief executive summary given or a summary of the projects (mostly benefit and claims) is given by the PP on the day of the PH itself and people are expected to synthesize the information, analyze, raise questions and take decisions as well, within a span of few hours. This is unfair and impractical, as without full information furnished well in advance, it is indeed difficult for people to take a free, fair and informed decision. Infact, many people, during the course of the study indicated that they did not even know of the existence of a body called PCB and many others had the impression that the PP and PCB are the same!



Perusal of the Public Hearing Reports of different Projects indicates that the PCB has played a bare minimal role in the entire process by merely performing the logistical task of publicizing the date and calling for the Hearing, introducing the hearing process by an environmental engineer and sending Report of the same to the MoEF. PCB has not fully ensured compliance of the minimum procedural safeguards prescribed in the EIA Notification, such as reading out of Minutes in vernacular after the hearing, preparing statements of issues raised in PH in vernacular etc. PCB has also not effectively performed the role of ensuring that All the affected persons and communities (esp. the marginalized and most affected including women, adivasis, dalits, landless and forest cultivators) are informed of the entire process and are duly heard. PCB does not consider as its role, the active facilitation of ensuring detailed answers to queries asked by people / civil society groups. In the context of new expansion projects, this also includes claims made regarding jobs, abatement of pollution etc. that were not implemented / partially implemented with regard to the old units.



A significant number of deponents at the Public Hearings are political party representatives and a very few villagers are given an opportunity to speak; and very few or at times no women from the villages get the opportunity to depose before the Panel. That hearing is generally held in the shadow of heavy police force and any questioning is sought to be muzzled or ignored, is a common complaint from villagers and activists. Instances of the PP precipitating an intimidatory atmosphere weeks before and until the date of 'hearing' and specific harassment of civil society activists was observed across projects.



Notably, none of the speakers during the public hearing people actually refer to the EIA Report indicating that the EIA Report is a document too distant from the people, in whose name it is drafted and for who it is meant. The lack of transparency on the mechanism of deciding as to 'who would be permitted to speak' and "who would not be", during the Public Hearing is also an important feature that needs serious re-think. There seems to be no cogent criteria for deciding on the various categories of persons who would speak. For instance, not a single woman from the villages of the studied projects was given space to speak in the PH. Grievances, comments, suggestions etc by affected persons, local activists are not fully and accurately recorded in the Public Hearing Report.



The EC, EAC minutes, consent letters, monitoring reports, periodic compliance reports are not translated into regional language by PP and not publicized in the affected areas, thus people hardly have information of the legal conditions and safeguards PP is mandated to follow.

C) Social Impact Assessment, Land Acquisition, Rehabilitation (SIA, LAQ, R&R)



Land acquisition, social impacts and R&R is dealt with in the most superficial manner in the EIA Report, with very little details, no finality of the figures, non-enumeration of all categories of affected people etc.



The claims of compliance with the Forest Rights Act, 2006 and LARR, 2013, disbursement of compensation and R&R in the Public Hearing Report are not be meticulously verified by EAC, FAC or any other Committee / Authority, especially serious aspects such as conduct of Social Impact Assessment (SIA), R&R of assigned-land owners and landless persons, settlement of forest rights as per FRA, 2006 etc, despite these issues having been raised in the public hearing by civil society activists orally and through written submissions.



It is infact routinely observed that not only the SIA, but most procedures and safeguards in LARR Act, 2013 are not scrupulously followed, thereby leading to further marginalization of dalits, adivasis and women. EAC and MoEF appear to be ignoring the serious aspect of total non-implementation of the mandatory Social Impact Assessment provisions in the Land Acquisition and Rehabilitation Act, 2013, thereby denying R&R to women land owners, landless families, agrarian workers and forest cultivators. PP's are normally only presenting 'CSR Reports', but not SIA Report, as required by the 2013 Act.



Land acquisition without updating of land records, especially in the scheduled tribe areas has led to denial of R&R benefits to adivasis, including women. Likewise, serious issues of disbursement of R&R packages to non-adivasis land owners in V Schedule areas have gone unchecked by the authorities.



The present arrangement whereby EIA process for EC and land acquisition happen simultaneously and even independently of each other is akin to putting the cart before the horse! Acquisition of land prior to the EIA process, especially public hearing makes the process of hearing / seeking public opinion and impact assessment, at least partly, if not fully, redundant and defeats the very purpose of a 'hearing'. Although, the EAC often seeks details of and even insists on 'assured availability of land' before EC, there seems to be no written clarity, with rationale on this from MoEF & CC! It is only reasonable that once land is acquired and in many cases, 80% + compensation is disbursed, there is little interest / stake in the hearing process by many affected people, since in any case the Project may come up.

Institution Related Observations:

A) Ministry of Environment, Forests & Climate Change (MoEF & CC):



Grant of EC in the case of all four projects studied could be construed as a deviation from the spirit of the EPA Act and EIA Notification. Clearance to expansion projects without full verification of due compliance of previous EC & consent conditions (KTPS and Ramagundam), grant of EC and exemption from redoing public hearing in violation of MoEF's own OM when plagiarism has been alleged by EAC (Yadadri) and when construction has preceded EC/consent (Bhadradi), is indeed a serious omission at the highest level (MoEF).



Lack of effective and comprehensive scrutiny of the EIA Report by the MoEF & CC at two key stages:

a) before forwarding EIA Report to EAC (prepared based on ToR granted)

b) after receiving EIA (& PH) Report, along with recommendation of the EAC for clearance appears to be a significant gap, thereby leading to clearance even when EIA Report is not fully as per ToR, baseline data is incomplete, inaccurate or not representative of the entire range, process of conduct of public hearing is not in consonance with the letter and spirit of EIA, 2006 and concerns raised during the hearing are not adequately addressed. (as also noted by the CAG in its Audit Report of Dec, 2016).



A lack of regular co-ordination between the MoEF & CC and its Regional Offices and the PCB, such as on receipt of compliance reports and prompt action is hampering efficient monitoring and is very evident in the violations that are going unchecked. Infact a recent study¹⁴⁵ by Vidhi Centre for Legal Policy has brought forth a staggering reality that out of a total of 629 compliance reports received between 1st June 2014 and 1st June, 2016 across the 10 Regional Offices of MoEF, only 22 were uploaded and the remaining 607 were not even uploaded.



Regional Office of MoEF has limited capacities, technical and legal staff, laboratories etc. to monitor and address violations of multiple projects in the region. It has been observed that ROs are unable to fully implement the mandate as per MoEF's OM of 8th Jan, 2014. It is also shockingly revealed from this OM that not even one (out of 30) sanctioned posts of the Deputy Legal Adviser, Assistant Legal Adviser and Legal Assistant are filled up at the 10 Regional Offices across the country!



The range of recommendations issued by the CAG in its Report (39 of 2016) with regard to environmental clearance and post-clearance monitoring esp. on streamlining of circulars, processes, instituting surprise checks, strengthening PCBs etc. are yet to be implemented by the Ministry. (See Annexure III)



MoEF & CC has delegated most functions to the EAC and has not been playing a pro-active role of ensuring compliance with the letter and spirit of Environment Protection Act (EPA, 1986) and Environment Impact Assessment (EIA, 2006).




Despite elaborate online systems, MoEF & CC seems to lack an effective functional mechanism for periodic and timely receipt of soft and hard copies of environmental audit and compliance reports from PPs, uploading of the same on the Ministry's website and follow-up.





MoEF & CC has not been pro-active in providing crucial information under RTI such as the list of projects which have been granted Environmental Clearance despite the prior illegal construction, the directions and notices which have been issued to the respective Project Proponents and the details of penal action initiated against the Project Proponents, indicating that in most of cases, if not all, the MoEF & CC has not taken any against the Project Proponents who have undertaken construction of TPPs, without obtaining ECs. RTI filed by the instant researcher (from Hyderabad) on the 4 identified projects have returned without information and only with a suggestion for 'file inspection'! (at Delhi)


B) Expert Appraisal Committee (EAC)


¹⁴⁵ Sinha, Debadityo and Mehta, Dhvani (June, 2017) Report by the Vidhi Centre for Legal Policy: Environmental clearances and monitoring in India: Report card for the Ministry Of Environment, Forests and Climate Change Available at: <https://vidhilegalpolicy.in/reports/2017/6/30/environmental-clearances-and-monitoring-in-india-report-card-for-the-ministry-of-environment-forest-and-climate-change>


 EAC's *modus* to consider too many projects in too little time has a serious impact on quality of appraisal (ex. *Public Hearing, social impact issues seldom discussed due to time paucity*). In addition to the serious issue of time-management of EAC's work, the fact that EAC is not a full time body implies that detailed and meticulous appraisal of every project is not possible. Independent experts state that within 1-2 days, the Committee is expected to appraise 25-30 projects, which is scientifically and qualitatively a constraint.


 There is hardly any discussion and deliberation of the issues raised during Public Hearing, within the EAC meetings, little application of mind on this and hardly do any of the members formally view the PH video in the meeting, as is reflected from the Minutes. With numerous agenda items / projects to be considered (including logistical and administrative matters) within a few hours, it is sheer impossible that PH videos can be viewed, much less analyzed! This is a grave gap, since EAC has no direct role in the Public Hearing Process, and therefore must scrutinize it only through the tools of the report and the video.

 EAC appears to have recommended projects for clearance and MoEF granted clearance despite the fact that many crucial aspects mentioned in the ToR have not been addressed at all or addressed inadequately in the Revised EIA Report – such as impact on agriculture, health impacts, cumulative impact assessment, impacts on aquatic life and river ecological flows etc or when the public hearing has not been conducted as per the EIA Notification.

 In certain cases (ex. pre-EC construction of Bhadradri TPP), the well-studied dissenting Opinions of EAC member is not duly considered and this is not a healthy practice, since EIA Notification itself requires decisions to be taken by consensus.

 Although the EIA notification provides for a fairly balanced composition of the Expert Committees (Schedule III of the notification), the current composition does not fulfill those criteria. Yet clearances of projects are being recommended by these committees. Members with expertise in law, social sciences, agriculture etc. are seldom on the EAC.

 Objections and queries raised by independent researchers, environmental scientists, experts, activists, advocates etc. do not seem to be answered satisfactorily or appear to be answered very vaguely without any substantive data, references, details by the PP. EAC has to ensure that these significant queries (which should infact be posed by EAC) are fully answered by the PP, before further recommendations, but that is not reflected in the EAC Minutes and Final EIA Report. It is often seen that EAC does not insist upon the PP to give comprehensive answers, backed by data, evidence and law.

 EAC lacks a proper mechanism for considering in detail each of the submissions and critiques by deponents before the Public Hearing and civil society activists as well as claims and counter-claims by PP, independent experts, civil society etc. Thus, the PP is able to get away with superficial, irrelevant, incomplete, false answers or even completely dodge the concerns raised. EAC does not seem to be ensuring a final, clear response by the PP on every count/concern raised.

☞ PPs and their authorized Consultants are permitted to present their case before the EAC, but there is actually no representative of the affected people, no space for civil society or even an alternative view to the PP within the EAC framework.

☞ EAC has a serious gap of not being able to get its own directions complied by the PP and the PP is often able to get away without the necessary information being furnished to EAC or by supplying incomplete, outdated information, despite being asked for repeatedly. (Ex. old health studies in the case of 2 X 800 MW NTPC Ramagundam TPP). This is symptomatic of the lack of will of the Expert Body and quite likely the pressure to 'recommend projects' (than a structural gap) since, as per procedure, EAC is free to defer recommending a project for clearance in case it is not satisfied.

☞ EAC lacks a mechanism to verify claims of District Collectors and project proponents of 'full compliance with the FRA, 2006 and settlement of rights.

☞ R&R Issues and Social Impacts are poorly dealt with or often ignored by EAC, which also lacks expertise on these matters. Even though Standard ToRs 12, 32, 35 of MoEF provide that R&R plans must be drawn up, detailed surveys must be undertaken and R&R ensured with special protection to the adivasis, EAC has not been adequately looking at the R&R planning and compliance aspect and has only been accepting the PP's claim at face value.

☞ The NGT has issued a wide range of Orders on the manner of conducting a healthy EIA, public hearing, appraisal etc. but many of these Orders / Precedents of NGT are not always duly considered or complied with.

☞ The affected communities and at times even local civil society groups have no understanding of and access to the Minutes of the EAC meetings since all of it is in English.

C) Pollution Control Board (PCB):

☞ Despite established and even admitted cases of violations and enough ground, there are very few instances, where the PCB actually files and pursues criminal cases against the polluters and violators, for violations of Air, Water and EP Act. The maximum the Board goes is upto issuing warnings and notices, but filing cases seems to be minimal and rather avoided.

☞ Infact when instances of violation of the EIA process are taken to the NGT, the PCB has not filed substantive replies and has instead been seeking dismissal of petitions, filed in environmental and public interest, within the framework of law.

☞ This lack of initiative by PCB to go tough on violators, especially government agencies, can be linked, at least in part, to the fact that the Board is not autonomous and is chaired, governed and staffed mostly by bureaucrats and state government officials.

☞ At the regional and district level, the PCB lacks adequate, competent and trained staff to ensure a) proper dissemination of information prior to the Public Hearing and b) effective assessment of scale of violations of consent and EC c) stringent monitoring of EC, consent conditions. The PCB also has a weak (and inactive) legal cell to advise and take up prompt legal action, in instances of violation. The district offices in particular are ill-equipped to deal with the

scale of violations and there is no organic communication between people from the pollution-prone areas and the local PCB offices.



There is wide-spread impression amongst civil society and media in Telangana that the PCB functions in a very non-transparent manner and there is little flow of information from the Board into the public domain (such as site visit, monitoring reports, notices issued are not even uploaded on website of PCB).



PCB has granted consent to expansion projects despite violation of previous consents and despite continuing complaints from the project-affected area of non-compliance.



PCB plays a bare minimal role in the public hearing process and is not even keen to ensure compliance of the minimum procedural safeguards prescribed in the EIA Notification, such as ensuring that the proceedings are understood by the people present, all concerned categories of affected people participate etc, not conducting Public Hearing in an adjacent state (Andhra Pradesh) when the project (YTPP) is likely to have impacts there as well.



People in the villages are facing severe impacts of air, water pollution esp. health-related ailments (including deaths), displacement and lack of R&R, loss of livelihoods, impact on agriculture. Neither Project authorities nor PCBs have been taking note of or addressing these issues in an earnest and lawful way. There is no assessment of the various kinds of losses and no timely disbursement of compensation to the affected persons.

D) Civil Society Organizations (CSOs)



Despite their rich and diverse experience, the voice, views and vision of CSOs with regard to socio-environmental governance is not taken seriously by PPs, PCB, EAC and MoEF.



There is absolutely no formal and meaningful space for participation of CSOs in the entire EIA process, except a restricted opportunity during the public hearing.



There is clearly a felt need for more capacity-building of CSO at the grass root level and at other levels, especially on the analytical, technical and legal fronts, to strengthen their interface with the affected people.



The levels of awareness at the village-level of the environmental and social impact laws, rules, regulations as well as conditions imposed during clearance etc. is very minimal to almost nil, resulting in weak monitoring and follow-up.



It is observed across projects that most CSOs are not engaged with project-specific issues and communities on an organic and sustained basis i.e. from the project proposal stage to Post-Construction, impact stage, thereby limiting their role.



A clear paucity of effective and interactive information, education and communication (IEC) materials in vernacular is a reason for wide-spread lack of awareness on the project and its various dimensions.



Inadequate collaboration amongst civil society groups possessing different skills, strengths and resources also appears to be contributing to poor response and monitoring on the social and environmental aspects violations.

11. Suggestions to strengthen Socio-Environmental Governance

Process Related Suggestions

A) The Environment Impact Assessment (EIA):



The following principles enshrined in the EIA Study manual of Thermal Power Plants need to be complied with scrupulously during the EIA process:

“A properly-conducted-EIA also lessens conflicts by promoting community participation, informing decision-makers, and also helps in laying the base for environmentally sound projects. An EIA should meet at least three core values:

- *Integrity: The EIA process should be fair, objective, unbiased and balanced*
- *Utility: The EIA process should provide balanced, credible information for decision making*
- *Sustainability: The EIA process should result in environmental safeguards”*



The affected people and civil society organizations (CSOs) must be involved in EIA process, esp. during baseline data collection and also at all the key stages of the preparation and finalization of EIA.



The EIA notification itself needs to have a section / clause on automatic withdrawal of clearance if the conditions of clearance are being violated, with more stringent punishment for non-compliance. Presently, the EIA notification limits itself to the stage when environmental clearance is granted. There is a need to extend the scope beyond that stage as the record on compliance of environmental clearance conditions is extremely dismal.



The current practice of PP’s engaging Consultants has not been working in a healthy and unbiased way and instead, MoEF & CC must have a sector/theme-wise list of duly accredited Consultants, who would be assigned to a PP on a rotation / lottery basis, thus minimizing scope for the PP to influence, in any way the objective and scientific impact assessment by the Consultant. PPs must be required to deposit a portion of the project cost with the Ministry, which can be utilized as payment for the Consultant.



Every EIA report should clearly state all the adverse impacts that a proposed project will have. This should be a separate chapter and not hidden within the technical details. Based on this, the Environment Management Plan (EMP) should include a specific set of measures, which are identified to mitigate these impacts, with costs and time frame included. This requirement should be built into the EIA notification and be legally enforceable.



The practice of permitting PPs to undertake ‘Rapid EIAs’ must be stopped forthwith. EIAs should be based on full studies carried out over at least one year. Single season data on environmental parameters like biodiversity, as is being done for several ‘rapid’ assessments, is not adequate to gain an understanding of the full impact of the proposed project.



MoEF can also compile, by open invitation, a similar list of state-wise third-party / independent academics, experts and CSOs with established technical credentials, to scrutinize and present written critiques of the EIA Report and also make oral submissions before EAC.



MoEF & CC must ensure prompt action against violator Consultants and de-recognition of their accreditation status. A Public List of Discredited Consultants must be available.



MoEF & CC could draw from the comprehensive Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement (Social Impact Assessment and Consent) Rules, 2014, which provide a more people-centric process for enabling EIAs as well.

B) The Public Hearing, Consultation & Monitoring Process:



The manner in which Public Hearing is conducted needs to be seriously re-imagined to ensure that it is not reduced to a mere ritual but becomes a robust mechanism for enabling informed participation by the affected villagers, especially non-literates, farmers, farm workers, dalits, adivasis, women and concerned citizens. The Public Hearing must not be conducted as a mere formality but must ensure the active participation of the affected villagers and public, not just political-party representatives. It must not be limited to a paper consultation and infact create meaningful space for people to have a decision in the process and the project, based on its overall costs and benefits, merits and de-merits.



The format of the present Public Hearing is more like a huge public meeting, where the participants and affected people have a passive and at best a very limited role to play. This format needs to be re-imagined and a phased and interactive hearing model needs to be adopted for effective and informed public participation. As has been previously as well suggested by environmental activists, there can be more than one public hearing, in the following stages.

Stage-I: Before Baseline Survey, a **Preliminary hearing** to explain the process of conducting the assessment so that the scope of the assessment is decided with the participation of the public. This could be done with the help of local CSOs in the area. Independent funds need to be allocated for the same.

Stage-II: The **second hearing** can be with a purpose of presenting and discussing all aspects of the assessment's findings, with the help of booklets/presentations and video-materials in local languages. Some of these aspects can include environmental impacts; costs and benefits of the project (including environmental and social costs); whether alternatives have been considered; displacement and rehabilitation aspects and so on.

Stage-III: The **third hearing** can be held after a week but no later than a month following the second meeting, this period being intended to give people a chance to analyze the information and points they have heard at the earlier hearing. This can be primarily to record the views and objections of the people.



In addition to the conventional Public Hearing, which is held more on the lines of a huge public meeting, consent of every Gram Sabha, in full session, must also be taken and text, video-recorded, prior to the Public Hearing for the entire affected area, so that villagers, especially women, are able to participate more actively within their respective villages.



Until such time that a specialized agency under the PCB is established to facilitate public-hearings, the Pollution Control Board must work in tandem with the State Legal Services

Authority to facilitate mass enviro-legal trainings and mass awareness camps of local bodies and communities in the project affected areas, prior to the public hearing, through the DLSAs and using new technology based interactive IEC materials. Trainings and sensitization of identified faculty and students from environmental science, social work and law colleges as para-legal, para-environmental awareness workers especially before public hearings is certainly possible and desirable.



Chairperson / Senior Member of SEIAA could Chair the Public Hearing Panel, with the District Magistrate, (from outside the project area) as a member. Every Panel must have at least one woman officer, either from the Revenue / Social Welfare / Tribal Welfare Depts. Every Panel must also have at least two members who have a demonstrated record of work on environmental and social concerns.



Not just 'physical presence', but actual and adequate representation and participation of every category of affected - women, adivasis, dalits, forest cultivators, landless, small farmers etc. must be ensured by the Panel, during the public hearing.



The presence of police before and during the Public Hearing must be significantly reduced and kept to the bare minimum, only to address any likely law and order eventuality. The atmosphere of the PH must be village-friendly and woman-friendly to enable people to freely depose before the Panel and not be intimidated, stopped, arbitrarily frisked by the police. The PH must be held in a free, fair and fearless manner. Harassment of civil society activists by state and project officials must stop.



Press should also be allowed free entry / access to the hearing site and there must be no restrictions on Press covering the PH proceedings, although the same is reported to be restricted on many occasions without written orders from any appropriate authority. The Press Council of India must ensure that media persons covering public hearing or tracking socio-environmental compliance of projects are not subject to harassment, transfer of beats by their media heads due to PP / state government.



The full proceedings of the Public Hearing must be recorded by independent rapporteurs nominated by the PCB. Minutes of the hearing and statement of issues raised must be read out in vernacular as specified in the EIA Notification, 2006. Report (translated in vernacular) and CD (Video) of Public Hearing must be ratified by every Gram Sabha, before being sent to EAC/MoEF.



All objections / comments received either during public hearing or with respect to a particular project must be put up in the public domain i.e. on the websites of the respective state PCB, project authority and MoEF.



The EC, consent letters, EAC minutes, periodic monitoring and compliance reports must also be translated into regional languages by PP (from project cost) and widely publicized in the affected areas, to enable the local communities and local citizen's action groups to understand the official processes verify compliance of these conditions. This must also be put up on the website of the PP and concerned PCB.



Local communities should be brought into the formal monitoring and reporting process of the compliance of conditions, thereby strengthening the hands of the regional offices of MoEF and PCB and also ensuring transparency in the compliance. Within 2 months of grant of EC by

MoEF, a formal meeting must be held by the PCB in every Gram Sabha in respect of which an EC has been granted, explaining the contents of the EC, process of compliance, monitoring, access to information, grievance redressal etc.



After grant of EC and CTE, CTO, the PCB must also initiate a process of annual or at least biennial project-specific review and public hearings to effectively understand and address the non-compliance on socio-environmental issues. The extension / revalidation of Consent to Operate (CTO) must be made conditional upon the review results of such a public audit process of compliance with all statutory conditions, including claims made by the PP. This must be immediately undertaken, at least in the case of all red category projects. Such a review can be part of the condition of EC itself.



MoEF & CC must formulate Comprehensive and Mandatory Guidelines for Conducting Public Hearings and issue the same to all appropriate authorities, state governments, district collectors, and other relevant agencies. A draft of these guidelines must be opened for public comments at least 3 months before being finalized.

C) Social Impact Assessment, Land Acquisition, Rehabilitation (SIA, LAQ, R&R)



Acquisition of land prior to the EIA process, especially public hearing makes the process of hearing and impact assessment, at least partly, if not fully, redundant. LAQ must begin and be undertaken only after clearance has been received from the MoEF & CC and in no case before clear consent for the Project has been received in the Public Hearing from a majority of the people present.



The state government must ensure complete implementation of the LARR, 2013 and PESA Act in V Schedule areas, in letter and spirit especially proper hearing and adjudication of objections, social impact assessment, R&R of all categories of affected persons etc. Oversight Mechanisms for grievance redressal envisaged in the Act, 2013 must be immediately put in place to enable affected persons to approach these authorities for redressal.



EAC must also comprise independent experts from legal, social science backgrounds to understand and analyze the social impacts, R&R issues, which are part of the ToR.

Institution Related Suggestions:

A) Ministry of Environment, Forests & Climate Change (MoEF & CC) must:



Undertake, through a dedicated and competent Wing, a thorough review of the entire EIA Report at two key stages:

- a) before forwarding EIA Report to EAC (prepared based on ToR granted)
- b) after receiving EIA Report, along with recommendation of the EAC for clearance
by way of a comprehensive check list of relevant laws, Guidelines, Circulars and Memos, to ensure that:
 - a) ToR is fully complied with, baseline data is accurate, complete and representative and the process of conduct of public hearing is in consonance with the letter and spirit of EIA, 2006 and all concerns raised

during the hearing and regarding the project's socio-environmental impacts are adequately taken care of.

b) any lapses or oversight at the level of the EAC is satisfactorily addressed, before taking a decision on grant or rejection of clearance, thereby ensuring compliance with all ToRs, technical, legal and environmental stipulations.



Establish at least one State-level office of MoEF & CC in each state, for effective co-ordination with the concerned PCB, other authorities and PP. These state level offices could also have advisory Committees comprising ecologists, sociologists, legal experts, local community members, government officials and representatives of local institutions to advise MoEF on the clearance of projects at the state level and monitoring of compliance of conditions.



Engage adequate number of environmental scientists and legal officers in the regional offices (until such time state-offices are created), empower the ROs by delegation of certain powers to take action against defaulting PPs and institute a system wherein reports of violation/s received from ROs are constantly monitored in coordination with the ROs, for ensuring that the PPs comply with EC conditions and take action, if necessary, as per law. MoEF must also ensure full compliance of OM dt. 8th Jan, 2014 on the mandate of ROs (including immediate appointment of 30 legal officers, whose posts are sanctioned at the 10 ROs across the country).



Institute a mechanism for surprise on-spot inspections, in consultation with the PCBs to appraise the status of environmental compliance with the clearance, consent and other statutory obligations by the Project Proponent.



Withhold grant /operation of fresh EC for expansion of capacities, until a comprehensive verification, with due satisfaction, of the compliance of all previous EC and consent conditions and other statutory requirements. (including a public audit of the compliance).



Refrain from grant of clearance, in case there is substantial opposition to a particular project from the local / affected communities, as expressed through their Gram Sabhas, on environmental and social impact grounds.



Institute a functional mechanism for periodic and timely receipt of soft and hard copies of environmental audit and compliance reports from PPs and uploading of the same on the websites of the Ministry, concerned PCB and the PP.



Stipulate the approximate cost of activities for the Environment Management Plan in the EC, along with the timelines for their implementation.



Notify clear norms, making public hearing mandatory in each state, when project impact is in two or more states.



Lay down mandatory guidelines with regard to the number of posts and qualification of persons to be engaged by the PP for implementation and monitoring of environmental parameters.



Inform all the concerned Panchayats formally and in advance before every field visit/inspection by the RO / head office and record a document in the nature of a Joint Panchanama, at every village / spot where the inspection takes place, with officials of MoEF, Project Authority, Panchayat members and the village representatives present as signatories.



Direct the State Governments to:

- strengthen the infrastructure and human resource of SPCBs so that they properly monitor the EC and consent conditions of the projects in their jurisdiction
- frame modalities clearly delegating responsibility of monitoring the compliance of EC letter and commitments made in the EIA reports.



Ensure expeditious implementation of the various recommendations of CAG in its Report 36 of 2016, including:

- “evaluation of the entire process of EIA by involving all stakeholders, following legal processes and make suitable amendments in EIA Notification 2006 rather than resorting to Office Memorandums”.
- working out strategies in co-ordination with the ROs, CPCB, SPCBs/UTPCCs and other Departments of State Governments to strictly monitor the compliance of condition mentioned in the EC periodically
- having mandatory EC conditions on installation of monitoring stations and frequency of monitoring of various environment parameters in respect of air, surface water, ground water noise, etc.

B) Expert Appraisal Committee (EAC)



The super structure of EACs must continue to operate under the MoEF & CC, but, given the expanse of the country and the very large number of projects, it would be immensely useful to have Zonal Thematic EACs (akin to NGT Benches), in order to reduce work load and enable qualitative appraisal of every project. Five Zone-wise Thematic EACs – for North, East, West & Central, South and North-East – functioning at least 15 days a month can be constituted by MoEF & CC so that EACs have enough time to deliberate on the numerous issues in each project in a comprehensive way.



The process of selection of EAC Chairperson and members must be completely open and transparent, making public the expertise/experience of all nominated members. Persons of high competence, credibility and expertise in relevant sectors must be appointed to these Zonal Thematic EACs. Chairperson of every Thematic EAC must be an environmentalist of outstanding credibility & competence. Each Thematic EAC in every Zone must comprise of two independent experts in environmental and social sciences and one legal expert.



EAC must not be burdened with too many projects within a short span and infact EAC's Agenda must be limited to consideration of fewer Projects with a given day, to prioritize qualitative over quantitative assessment and appraisal.



PPs and their authorized Consultants are permitted to present their case before the EAC, but there is actually no representative of the affected people, civil society or even an alternative view to the PP within the EAC framework. This is a serious lacunae and this aspect must be

addressed by creating some space within EAC for legitimate stakeholders, including members of credible public interest, environmental, social and technical organizations as well as affected people and their representatives, to make written and oral depositions, presentations, participate at key stages of the EAC deliberations (esp. before grant of recommendation and EC). Like Consultants, a state-wise list of such experts and organizations could also be invited to be on a regular Panel of the MoEF. Such a mechanism would ensure that the MoEF and EAC understand the concerns directly from these parties rather than indirectly from the minutes of a public hearing or from a letter and lead to appropriate incorporation of their concerns and opinions into the decision-making process.



EACs must be driven by the sole objective of ensuring thorough scrutiny of every EIA and should not be bogged down by arbitrary time lines to 'expedite' the process. EAC must devote time to mandatorily discuss the process and report of Public Hearing, with a dedicated criteria such as - adequate participation (not just 'presence') of local people/villagers (not just political representatives), adequate representation of all categories of people such as women, landless workers, adivasis, appropriate time and space for presentation of views by all etc. EAC must also view the full public hearing video with the help of professional language interpreters and record detailed observations in the Minutes. Each Recommendation by EAC must be based on detailed application of mind and accompanied by a reasoned position, recorded in writing.



Presently EAC Minutes only provide a gist of the meeting. Infact, a verbatim record of every EAC meeting, including details of comments, observations, suggestions, made by every Member (and deponent) must be prepared and available in the public domain to inspire confidence in public-at-large that the proceedings within EAC are based on sound science, adequate information and the criteria of legal compliance, ecological sustainability and social justice and to make committee members accountable for the recommendations they give to the MoEF.



EAC must ensure that all Orders and good precedents set up by the NGT and Supreme Court are considered and complied with, during the course of deliberation of proposals by PPs and EIA Reports.



At least one field visit must be ensured by every Thematic EAC before recommending a new or expansion project for EC.



Differing or dissenting opinions of members of EAC, especially when they point to the possibility of environmental violations, must be considered in a proper and objective manner by the EAC and an attempt must be made to arrive at a scientific and just consensus.



Every Zonal EAC must be assisted by a Full-time competent Secretariat, using latest software technology. The Agenda and all related documents of every EAC meeting must be available at least 15 days in advance and minutes must be uploaded within 5 days of the meeting, as per norms.



Minutes of all EAC Meetings of the project in question must periodically be made available to the concerned Gram Panchayats in the vernacular language.

C) Pollution Control Board (PCB):



All State Governments, including Govt. of Telangana, must immediately comply with the Judgement of the Hon'ble Supreme Court dt. 22nd Sep, 2017 in *Techi Tagi Tara versus Rajendra Singh Bhandari & Ors* directing the “Executives in all states to frame guidelines or recruitment rules within six months, considering the institutional requirements of the SPCBs and the law laid down by statute, by this Court and as per reports of various Committees and authorities and ensure that suitable professionals and experts are appointed to the SPCBs”.



As elaborated in great detail in the aforesaid judgment, in order to function in a non-partisan and effective manner, the Pollution Control Board needs to be completely independent and autonomous. Chairperson of the PCB must be a person with expertise and experience in environmental matters and should not be a retired bureaucrat or representing any political party. Each PCB must also have at least two-three environmentalists, representing different regions and sectors of the state, with expertise and credibility.



As the only relevant monitoring body at the state-level (with regard to mega TPPs), the PCB needs to be fortified with more human, technical resource, budgets to pro-actively ensure:

- a) pre-hearing information dissemination and hearing process are conducted in an effective way, thereby guaranteeing implementation of MoEF's various regulations; in particular EIA Notification, 2006 in full letter and spirit
- b) post-EC monitoring and full compliance of consents and environmental clearances, statutory orders, NGT & SC directives.



The administrative apparatus of PCBs needs a radical overhaul, with priority given to the recruitment, training and capacity building of multi-disciplinary field and office staff in each district, in particular adequate number of environmental inspectors and law officers.



PCB's must ensure periodical monitoring after grant of CTE and CTO to Project Proponents, promptly issue notices for violations and upload these on the SPCB websites (in vernacular as well) and take up penal action in every case of violation.



Every PCB must have a strong, competent and dedicated legal cell to advise on legal matters and pursue all cases of violations of environmental law, especially violations of Air and Water Act.



The PCB must also have a separate media /public information desk to interact with media and general public. Every district unit of the PCB must have a robust, transparent and accountable public grievance redressal system and a system of a monthly public hearing, on the lines of the 'Lok Adalat'.



PCBs can also empanel Universities within the state to undertake research, sample surveys, impact studies of key projects / pollution-prone areas, to enable generation of data for taking up remedial measures and necessary action.



On the lines of Judicial Academy, a dedicated state-level training academy for officers and staff of PCBs such as environmental inspectors, environmental engineers, technical and law officers etc as well as district level-officials is very much required. For instance, in Telangana, the Environment Protection Training and Research Institute (EPTRI) can also undertake this

function, subject to the rider that the EPTRI itself needs to be more pro-active and ideally autonomous from interference of the state government.



State Govt. can consider levying a fixed and rational fee on the PP, as part of the overall project cost, for training of state-level and PCB officers, civil society and community groups.



A dedicated Agency within the PCB for overseeing and conducting the EIA and public hearing process, as per EIA, 2006 is direly needed. This could be state-funded Independent Environment Support Agency, with district chapters (if possible) where all stake holders – PPs, affected people, etc. can approach for guidance, legal direction, information etc. Such a body could be in charge of the independent and high quality pre-public hearing environmental awareness, designing of people-friendly info modules, info dissemination campaign etc. This body must facilitate and oversee the production of people-friendly text, audio and audio-visual literature on the EIA and public hearing process, basic environmental, land acquisition and R&R laws etc. (with active assistance and co-operation from the State Legal Services Authority).



Large-scale theme-wise and cross-sectoral capacity building of civil society groups in each district is required. A concerted drive to undertake rigorous, long-term analytical, enviro-legal, in-depth training of at least 5-7 credible and well-known civil society groups in each district on the process of EIA, public hearing, environmental governance and people-centric monitoring would strengthen the state of environmental awareness and people-based monitoring in the districts.



PCB must inform all the concerned Panchayats formally and in advance before every field visit/inspection by the Board or its regional/zonal offices and record a document in the nature of a Joint Panchanama, at very village / spot where the inspection takes place, with officials / inspectors of PCB, Project Authority, Panchayat members and the village representatives present as signatories.



The State Govt. (along with PCB) must expeditiously evolve and put in a place a participatory and transparent system to evaluate / quantify all the adverse impacts / losses being faced by people, their property, livestock etc. due to the project and ensure timely disbursement of compensation to the affected persons. Norms for the same can be based on the LARR Act and Rules as well as the NGT Act. This needs to be in addition to (and not in lieu of) prompt measures to abate all forms of impacts.

D) Civil Society Organizations (CSOs)



Govt. must ensure adequate, formal space for CSO (including community-based organizations) representation at key stages of the EIA process and within authorities like the EAC, PCB, MoEF & CC to ensure balanced and inclusive decisions on projects with socio-environmental implications.



CSOs and credible representatives of villagers must also be given appropriate space on the CSR Committees to enable transparent and effective planning and execution of CSR activities.



Regular and meaningful channels of dialogue between CSOs, PCB and Government would really strengthen the process of monitoring and grievance redressal.



Sustained Technical and Analytical Capacity Building of CSOs by EPTRI, PCB, SLSAs/DLSAs (State and District Legal Services Authorities) and also non-state expert groups would fortify their interface with the affected people and various agencies of the State. There also needs to be rigorous follow-up to capacity building programmes, through meetings, sharing of updated information, and discussions at local levels.



Mass production and dissemination of effective, interactive and people-friendly information, education and communication (IEC) materials in vernacular is necessary to generate awareness on the various socio-environmental and legal aspects of TPPs, not just 'before public hearing', but right from the stage of project proposal to post-clearance monitoring stage.



Likewise, grassroots CSOs must consider engaging with local communities and project-specific issues on a sustained basis i.e. from the project proposal stage to Post-Construction, impact stage.



Regular and effective collaboration amongst civil society groups possessing different skills, strengths and resources to facilitate monitoring on the social and environmental aspects and violations.

PART V: ANNEXURES

12. Summary of Field Visit and R&R of the

Yadadri Thermal Power Project (YTTP) affected families

A visit to some of the villages and hamlets affected by the Yadadri Thermal Power Plant was undertaken on 1st and 2nd July, 2017, to understand the concerns and issues from the ground, claims made in the EIA Report on the conduct of the Public hearing as well as the process of land acquisition and rehabilitation, which is an integral part of the Project. The villages visited include Talla Verappa Gudem (Goud and Dalit Hamlets) and Veerapalem (Modugula kunta Thanda, Dubba Thanda and Kapra Thanda). A brief visit to the Tungapadu Vagu, the rivulet which is to be affected by the Plant was also made. The visit was undertaken by the researcher Meera and Harinder Nandyala of Human Rights Forum, Nalgonda, who was one of the deponents before the Public Hearing Panel. A spot-wise summary of areas visited is below:

Day I: Spot I: Village Talla Verappa Gudem

The first spot visited was the Goud (non-advansi) hamlet of village Talla Veerappa Gudem, where we spoke with a group of women and men as well as to the Panchayat Sarpanch. Many residents over here are migrants from Guntur district (presently in Andhra Pradesh), but have been staying here since 3-4 generations at least. Most of the farmers in the village have small land holdings. While some farmers cultivate revenue patta lands, a large number of them only depend on forest cultivations. We spoke to Borra Lakshamma (1.5 acres), Bathi Venkateshwarulu (5 acres), Raikindi Seenu (2 acres), Raikindi Kotayya (2 acres) Raikindi, Bakkaya (2.5 acres) who informed us that they did not receive any compensation for their forest cultivations, although they and their families have been dependent on this for at least three-four generations in succession.

The villagers informed us that their cultivations over about 700 acres of forest lands have not been recognized and pattas have not been granted as per the Forest Rights Act, 2006. Some of them also stated that these lands were marked in the documents of the Forest Dept. since 1954. It was clear that a realistic assessment of forest cultivations of the 'other traditional forest dwellers' as required under the FRA, 2006 was not undertaken and due pattas have not been granted, based on eligibility.



The Sarpanch informed us that the villagers initially questioned the Project and passed a resolution in the Gram Sabha against the Project, as it would cause environmental harm and displace them from their lands and livelihoods. However, when officials repeatedly promised jobs to all affected families and good rehabilitation measures, a resolution in favour of the Project was passed by some of them. Many of the villagers, especially women, we met however stated that they were not aware of the Gram Sabha proceedings approving the Plant.

When asked about the EIA process and the information to be provided before the hearing, very few persons had an idea of the same. The Sarpanch and a few male villagers stated that a brief Telugu summary of the 1st EIA Report (plagiarized copy, rejected by EAC) of the Project was placed in the Panchayat office.

However, we were categorically told by the villagers and the Sarpanch that subsequent to this, the revised EIA Report nor its Telugu summary was shown to them. Although, many of the villagers did go to the Public Hearing, only one or two among them were allowed to talk. *“Out of 53 deponents before the Publics hearing Panel, only person actually saw the EIA”*, said activist Haridner. We were told categorically by some villagers that the ‘Gram Sabhas’ in all villages were held on the same day in the month of Aug, 2015, upon instructions of Mr. Kishan Rao, the Revenue Divisional Officer to the Sapranches of concerned Panchayats and with police *bandobust* ! We also got to know from the locals that both the MLA and MP of the area who belonged to the Congress moved to TRS (ruling party) shortly after the public hearing !

Day I: Spot 2: Dalit Hamlet of Village Talla Verappa Gudem

The dalit hamlet consists at least of 300 schedule caste families, and a few adivasis families from the Erukula and Lambada communities. A large number of poor, landless dalit (SC) female and male agricultural workers emphatically told us that no official of the state government informed them of the procedure under the EIA Notification for their informed participation in the Public Hearing nor of their rights under the Land Acquisition and Rehabilitation Act, 2013. Thus, they could not participate in the public hearing proceedings and voice their concerns.



Balu Pouli stated that the landless people of this hamlet have been working as agricultural labour on 500 acres of revenue and forest land for more than 4 decades. Some families also graze their livestock on about 10 acres of the forest land. While each adult landless person, residing / carrying on any occupation is also to be treated as an oustee and given rehabilitation as per LARR Act, 2013, it appears that the provisions of the Act have just not been applied. When questioned as to whether any Social Impact Assessment of these families was conducted as per 2013 Act, Kotayya, an articulate villager elder said that no such survey was undertaken, nor were people informed of their rights under the 2013 Act. As the Govt. has acquired the lands of the land-owning Goud farmers, officials have not been allowing the farmers to cultivate their lands, thereby affecting the livelihoods of the farmers as well as agricultural workers over the past 2 years, rued Durgama and Nagamani.

Notably, a few villagers were given assigned land pattas by the Govt. a few decades back in Sy. No. 26. The villagers claim that Sy. No. 26, has been fenced off recently by the Project authorities, while even the said land has not been acquired from them ! Infact, a police case was registered against 8 villagers for grazing their livestock in these lands, last month.

Day I: Spot 3: Tungapadu Vagu

Villagers informed us that the Tunghapadu Vagu is a perennial stream, which is an important source of water for the agricultural lands in the nearby villagers and that many of them harvest 2-3 crops a year. Infact, local farmers have invested lakhs of rupees in pipelines from the stream to their lands. The pictures below show both the pipelines as well as some of the fertile lands with rich horticulture. A few families also undertake fishing in the Vagu. While the PP claims that this is a very small rivulet, the very fact that a huge bridge across it, costing more than I crore has been built, proves the contrary, said some villagers.

As admitted by the Project Proponent, 3.90 kms of the Tungapadu Vagu (stream) passes through the project site. The stream has a catchment area of 694 sq kms. Once the site is developed, this portion of the stream and its feeding channels will be levelled and eliminated. That is an ecological damage not considered in the EIA or the EAC Sub-Committee visit report. While the Standard ToR clearly states that the project site must be 500 mts away from water bodies such as rivers, streams etc, the Sub-Committee which recommended the Project stated that the project can be at a distance of 100 mts buffer area from the Tungapadu vagu !

Photographs of Tunghapadu Vagu, Pipelines from the Rivulet and Rich Horticulture supported by it



Day I: Spot 4: Modugula kunta Thanda

Modugula kunta Tanda is a predominantly Lambada-ativasi hamlet, with around 180 houses. Both the agricultural lands and hamlet (houses) are affected by the YTTP.

Villagers informed us that ever since their lands have been taken away for the Project, the farmers have been restrained from cultivating their lands and even the electricity connections for the motor pumps has been cut off. Ramavathu Jija W/o Ramavath Tharya stated that 2 acres 90 cents of her land would be affected by the Project, but she has not received any compensation. Pathulthu Sura S/o Balya stated that has 2 acres, 9 guntas of his forest land is affected, but compensation for only 1 acre 17 guntas has been given. Pathulothu Babu has got forest patta over only 2 acres of land while he cultivated four acres of land. It was clear, upon hearing the residents that Forest Rights have not been fully settled, before land acquisition. Pathulothu Anjaiah stated that due to acquisition of farm lands, over a 1,000 bores were also, affected but no compensation has been paid for the same. Speaking of his own case, he said the bore he dug up about 15 years ago for Rs. 10,000/- would now cost him around Rs. 40,000/-.

Most of the villagers seemed unaware of the procedures and their rights under the EIA Notification, 2006 for their informed participation in the Public Hearing, the Land Acquisition and Rehabilitation Act, 2013 as well

as Forest Rights Act, 2006. This was evident in the incomplete settlement of forest rights as well as their limited participation in the public hearing proceedings. At this village, we were told that reportedly, the land given to oustees of Nagarjuna Sagar Dam in the nearby Shanti Nagar is being acquired / diverted for establishing the R&R site of Yadadri TPP.



Day 2: Spot I : Veerapalem



Veerapalem is a village inhabited by various communities including SCs, STs, Reddys, Gouds and Kmmas. It's a large village with about 3,600 voters and not less than 1,100 families. The villagers informed us that the lands

that they used to cultivate were irrigated by the Tunghapadu Vagu and that many of them harvest 2-3 crops a year. We could see on our way to the village that many pipelines ran from the stream into the fields and villagers invested in this. Except for a few men who participated in the public hearing, most of the people we met had no idea of the process under EIA, 2006 and none of them saw or heard of even the executive summary of the EIA.

A large number of forest cultivators in this village as well stated that they did not receive pattas for their forest land. One of the villagers Seenu Naik informed us that out of about 400 claims made by the adivasis and other forest cultivators, only 25 were accepted and others were rejected. We were told that each revenue land-owner was paid Rs. 6 lakhs per acre and Rs. each forest-cultivator, who had a patta under FRA, 2006 was paid Rs. 6.90 lakhs per acre.

Day 2: Spot 2: Dubba Tanda



Dubba Tanda is a predominantly Lambada-*adivasi* hamlet, with around 150 houses. Both the agricultural lands and hamlet (houses) is affected by the YTPP. We met some of the land owners who have been given cash compensation about a year ago for the lands acquired from them. They stated that the govt. also promised to give them permanent government jobs, but no such employment is in sight, till date. Notably, the Minutes of the FAC dt. 17/3/2015 took on record the Project Proponent's claim that YTPP would create direct employment for 6,000 to 8,000 persons and indirect employment for over a lakh persons.

However, most of the families who were 'left out' were landless, who were not even counted in any government survey (Social Impact Assessment as per LARR, 2013) nor extended any rehabilitation benefits. Some of the landless persons we met were Susheela W/o Chandu Rupavat, Korra Seva S/o Balram, Rupavah Baddu W/o Ghasya, Rupavath Sadi W/o Chinnaswamy, Miravath Seva S/o Lapathy. We were also told that some of the villagers like Rathulothu Lakma have migrated for livelihood, subsequent to the distress created due to the stoppage of agricultural activities on acquired farmlands.

We almost saw a pattern of lack of basic information and awareness amongst the villagers about the governmental procedures and their rights under the EIA Notification, 2006 for their informed participation in the Public Hearing and the Land Acquisition and Rehabilitation Act, 2013. None of the project-officials, we were told, gave people a complete and accurate account of the complete procedure and legal rights, apart from sporadic bits of claims of compensation and jobs.

Day 2: Spot 3: Kapura Tanda

Kapura Tanda is a predominantly Lambada-adivasi hamlet, with around 80 houses. Both the agricultural lands and hamlet (houses) is affected by the YTTP. When we visited the hamlet, we found that quite a few of the residents of this village have migrated to nearby towns in search of work, since there has been no productive work in the village for the past two years. Ever since lands have been taken away for the Project, the farmers have been restrained from cultivating the same.



We met an elderly adivasi man Lachiram S/o Vatchaya Rupavat, who received Rs, 18 lakhs for 3 acres of fertile revenue land. He has a family of 3 sons and 4 daughters, all adults in the year of land acquisition (2015) but none of them have been counted as separate oustees. With no other livelihood, his family has been using the compensation money to eke out everyday needs and very little of the amount remains.

We also met a few landless oustees including Rupavath Balu S/o Somla, Modhavath and Modu Shiva, both sons of Modavath Bicha and Rupavath Rambabu Naik S/o Heera, who have not received any R&R as per the LARR Act, 2013. An adivasi woman Saroja stated that they are facing a serious situation of hand to mouth and are having to 'buy grains' from the open market at high prices, which they never had to do when they had their own lands! We were clearly told that no survey or Social Impact Assessment of all affected families was conducted.



A woman grazing her goats in the lands affected by the YTTP



Warning Notice by the YTTP Authorities threatening legal action for trespass on Project land.

13. Relevant Extracts of the Minutes of the Meetings of Expert Appraisal Committee (Thermal) - EAC (T)

Bhadradri Thermal Power Plant

1. Extracts of the 32nd meeting of EAC dt. 23rd and 24th of February, 2015

1. The project proponent along with their environmental consultant, Vimta Labs, Hyderabad made a presentation and inter-alia provided the following information. Three sites were examined for setting up the proposed power plant. Site- 2 & 3 were not considered as they are falling within the Reserve Forest Block area. The land for the proposed project is 1183.24 acres (for Thermal power plant is 1110.38 acres and for future expansion of Solar power plant is 72.86 acres). Kinnerasani wildlife sanctuary is at a distance of 10.8 km in the SW direction. The total estimated project cost is approx. Rs. 7,360.21 Crores.

2. Coal requirement will be 4.07 MTPA (50% domestic coal + 50 % imported coal) at 85% PLF with GCV of 4550 Kcal/kg and 3.24 MTPA (100% imported coal) at 85% PLF with GCV of 5700 Kcal/kg. Domestic coal is proposed to be sourced from the SCCL mines and imported coal will be sourced from Indonesia or other available good quality imported coal. Ash content of Indigenous coal and Imported coal will be 40% and 15% respectively. The total water requirement of 4155 m³/h (1.4 TMC/annum) shall be sourced from River Godavari.

“3. After detailed deliberations, the Committee sought the following information and **deferred** the proposal.

- i) Minimum two alternate potential sites on a topo sheet.
- ii) Optimize the land requirement as per CEA norms.
- iii) Revise the Plant layout by shifting the locations of ash pond and township.
- iv) Examine the feasibility of switching to super-critical technology and accordingly, revise the configuration of proposed Units.”

2. Extracts of the 36th meeting of EAC dt. 19th and 20th May, 2015

“(iv) A note was furnished by the Government of Telangana vide letter dated 15.04.2015 justifying the setting up of 4X270 MW Sub-critical power plant. As there is acute shortage of power in Telangana State, the State government has directed TSGENCO to establish 4 x270 MW Thermal Power Station at Manuguru to meet power demand in the Telangana State in view of the assurance given by M/s BHEL to complete the project in two years period on fast track mode. TSGENCO will ensure the stipulation of MoEF & CC, GOI & TSPCB suitably for Sub-Critical technology.

The Committee opined that in view of the latest Orders of CEA/ Ministry of Power for allowing only supercritical technology, the company shall seek an exemption from CEA, if supercritical technology is not proposed. Further, the PP has not proposed 33% of the area as green belt which needs to be done. Based on the information provided and the presentation made, the Committee **recommended** the following ToR in addition to the standard TORs (as applicable) at **Annexure-A1** for undertaking detailed EIA study and preparation of EMP.

I. Shall explore the feasibility of installing Super Critical Technology. If subcritical is proposed, prior approval of MoP shall be submitted. Accordingly, the EIA/EMP shall be prepared.

II. Action plan for development of green belt in 33% of the area and thick green belt between the Road and the River.

III. Green belt plantation should be started as soon as possible, before starting any construction activity.”

3. Extracts of the 60th meeting of EAC dt. 27th July, 2016

(3.1.1) On being made aware of certain directions to the EAC (through the MoEF & CC) contained in the Order dt 11th July 2016 passed by the NGT (Southern Zone) in connection with the proposed 4 x 270 MW Bhadradi Thermal project, the EAC had desired its Member Secretary to obtain a copy of the said Order and place it before the EAC in its meeting scheduled for today ie 27th July 2016. {{This advance action was taken by the EAC keeping in mind the short time frame available to the EAC on account of the fact that (i) as directed by the NGT, its directions are to be complied with within a period of eight weeks from the date of the Order ie by 11th Sep 2016, (ii) after the meeting on 27th July 2016, the next and last meeting of the EAC has earlier already been scheduled for 29th and 30th August 2016, and (iii) the tenure of the present EAC expires on 01st Sep 2016}}. Accordingly, the MoEFCC placed the Order before the EAC for further action by the EAC on the directions issued to it by the NGT.

(3.1.2) A perusal of the NGT's Order showed that the specific directions to the EAC are contained in paras 36, 37 and 39 of the Order. The first step to be taken by the EAC is contained para 39 (1) of the Order ie “However, the first respondent shall through EAC proceed with the appraisal in which event EAC shall take a preliminary decision as to whether proper impact assessment is possible by virtue of the activities already carried out by the third respondent”. As directed in para 36, this task has to be performed by the EAC “on a spot inspection”. Subsequent action by the EAC is dependent on this first step.

(3.1.3) Accordingly:-

(a) The EAC constituted a Sub-Committee under the chairmanship of Prof CR Babu, and consisting of the following Members to visit the site :- Shri NK Verma, Shri GS Dang, Shri Shantanu Dixit, a representative of CEA, and concerned representatives of MoEFCC.

(b) The Sub-Committee members, keeping in view their prior commitments, indicated that they would carry out the site inspection between 17th to 19th August 2016.

(c) The EAC requested the Sub-Committee to circulate its report to the EAC latest by 24th August 2016, so that it can be taken up during the EAC meeting on 29th and 30th August, and the EAC can then take further action as directed by the NGT in paras 39 (2) and (3)

(d) The Sub-Committee requested the MoEFCC to make available to it documents available with MoEFCC, particularly photographs of the earlier site inspections mentioned in the NGT Order, to better appreciate what was the status of work stated to have been carried out at the time of the earlier site inspections.

(e) As per practice, the MoEFCC was requested to make necessary arrangements for the site visit by the Sub-Committee.

4. Extracts of the 63rd meeting of EAC dt. 29th and 30th Aug, 2016

*(3.1.2) Subsequently, the Sub-Committee scheduled the visit during 17-19 August 2016. Shri G. S. Dang could not join the team due to sudden illness. The report of the Sub- Committee (**annexed to this MoM**) was circulated to the EAC prior to this meeting and was deliberated upon at length during this meeting. The EAC inter-alia, noted that one member has made additional observations, and conclusions. The EAC also observed that the above proposal for EC was not placed before EAC and hence, the EAC did not access the EIA/EMP etc.*

(3.1.3) The EAC accepted the report and its conclusion by the majority of the members of Sub-Committee. The said conclusion is as follows:

“In light of above observations, the Sub-Committee is of the view that the ground preparation activities for levelling and grading, excavation of soil for foundation, concreting of foundation and Steel reinforcement therein for some power plant units over an area of just 1.85% of the total area, temporary stacking of soil, Kachcha roads of short distance for movement of vehicles, the temporary storage of materials and machines, and temporary sheds for storage of sensitive instruments and a small substation, a batching plant, office sites, etc. will not form impediment for appraisal of EIA of the project. As reported by PP, the EIA was conducted before the works started at the site and the area disturbed is a minute fraction of the project area which further substantiates that appraisal of the environmental impacts of project can be done. Moreover, the ground preparation and foundations for Power Plant Units have been done as per the layout considered while according ToR. There are no ecologically sensitive areas such as forests, wetlands etc. within the project site and National Parks, Wildlife Sanctuaries/Corridors, archaeological monuments etc. within the study area”.

5. Extracts of the 2nd Re-constituted Meeting of EAC dt. 20th Jan, 2017

Committee after detailed deliberations, discussions and considering all the facts presented by the PP including Complaints received from some Civil Action Groups, **recommended** for grant of Environmental Clearance subject to the following specific conditions:

- i. A legal undertaking shall be given that PP owns the EIA/EMP and other documents submitted for appraisal.
- ii. Feasibility study of Merry Go Round (MGR) System for coal transportation shall be explored and submitted to the Ministry. In any case, Coal transportation shall be through rail only.
- iii. Explore alternate technologies so that water consumption is further reduced. As recommended by the NIH, Kakinada, appropriate lining shall be done for ash pond area to safeguard groundwater quality and reduce leaching impact towards proposed township.
- iv. Fly ash transportation shall be done through tarpaulin covered trucks only.
- v. Cycle of Concentration (COC) of 6.5 shall be achieved by setting up of RO for treating cooling tower blow-down water.
- vi. The project proponent will submit to the EAC a copy of the impact assessment carried out by Ministry of Irrigation of Govt. of Telangana regarding possible downstream impact of withdrawal of 1.5 TMC of water per year from the Godavari.

Yadadri Thermal Power Plant

1. Extracts of the 45th EAC (T) Meet Minutes held on 29th - 30th Oct, 2015

The PP along with their environmental Consultant, Bhagavathi Ana Labs Pvt. Limited, Hyderabad made a presentation. The Committee noted that, a tributary/channel of River Krishna is passing across the proposed site. The Committee had detailed discussions with the PP regarding shifting of the proposed site/revising the layout so that the said channel is not affected. The Committee opined that a site visit by a Sub-Committee is required to ascertain the ground situation before taking a decision. The PP also requested the Committee for the site visit.

2. In view of above, the proposal was **deferred** and shall be considered after submission of the site visit report by the Sub-Committee.

3. A copy of the representation received by the Committee from ERC, New Delhi on the proposed project was provided to the PP and a detailed reply was sought on the issues raised.

2. Extracts of the 48th EAC (T) Meet Minutes held on 18th Dec, 2015

(2.1.2) The committee perused the report of the sub-committee which had visited the site on 05.12.2015 in connection with the matters relating to a tributary/channel of River Krishna passing through the proposed site etc.

(2.1.3) The committee noted that the presentation of the PP did not appear to deal with the concerns that have been raised by ERC vide their representation dated 28.10.2015, a copy of which was made available to the PP in the October, 2015 meeting. The presentation was lacking in clarity and only verbal submissions were being offered by the PP on the concerns that have been raised.

(2.1.4) The committee therefore advised the PP to address the various concerns adequately and comprehensively mentioned in the representation along with an action plan for the various recommendations of the sub-committee during the site visit, a copy of the report of the sub-committee was provided to the PP during the meeting. On receipt of the proper response from the PP, the matter may be placed before EAC for reconsideration.

3. Extracts of the 50th EAC (T) Meet Minutes held on 28th – 29th Jan, 2016

A copy of the representation received by the Committee from ERC, New Delhi on the proposed project was provided to the PP and a detailed reply was sought on the issues raised.

(2.10A.4) After detailed deliberations, the Committee recommended the following ToR in addition to the standard TORs (as applicable) at Annexure-A1 for undertaking detailed EIA study and preparation of EMP. The Committee agreed to the request of PP for using the baseline data being collected from 01.12.2015 in the ELA/EMP as the Standard ToR was accorded to this proposal by the Ministry's Online Portal on 02.11.2015.

- (i) The Tungapadu Vagu should not be diverted, but it should be preserved, protected and its flows enhanced.*
- (ii) The PP should leave a minimum of 100 m buffer on either side of its banks and this buffer should be developed into native forest.*
- (iii) No effluent should be discharged into the rivulet or River Krishna.*
- (iv) In areas where the banks are breached, the breaches should be plugged and strengthened.*
- (v) In areas where the riverbed is silted/partially blocked due to landslides, the blocks and silt should be removed in a way that the original gradient is maintained.*
- (vi) No water from the stream shall be extracted.*
- (vii) To sustain the downstream ecology of the Tungapadu Vagu, the Irrigation Department should release minimum ecological flows from the reservoirs constructed in the upstream.*
- (viii) The plateaus and their slopes within the project area, which are not used for the project purpose, are highly degraded. These should be restored to their original natural forest ecosystem and should be used for the conservation of rare and endemic plants and animals found in the plateaus of project area. These forests not only serve as green belt to mitigate fugitive emissions, CO₂ and other pollutants, but also serve as a conservation area.*
- (ix) The reserve forest that demarcates the project boundary on the South is also highly degraded. This intact patch should be restored to its original forest ecosystem and should be connected to the forest ecosystem of the project area and other reserve forest in the area. This would not only serve as buffer for the project but also acts as a corridor for wildlife and enhance stream flow. For this purpose, the PP should provide grants to the State Forest Department and work should start within a reasonable time of 1-2 years after preparing a detailed site specific action plan.*
- (x) The PP should create a permanent corpus fund for tribal welfare and also provide adequate compensation for the land losers irrespective of their status besides best possible R&R package and extending social welfare schemes and healthcare system for local communities.*
- (xi) Cumulative impact assessment of air, water, soil and socio-economics should be carried out in view of a number of cement plants already established/operating in the vicinity of the proposed plant.*
- (xii) As agreed by the PP, the area for ash pond shall be minimized by shifting it towards North. Further, a minimum distance of 500 m buffer shall be maintained between the proposed ash pond and Tungapadu Vagu. The buffer shall be developed into thick green belt/natural forest.*
- (xiii) As agreed, the impervious lining for the ash pond shall be over and above the clay lining.*

4. Extracts of the 63rd EAC (T) Meet Minutes held on 29th – 30th Aug, 2016

Based on above observations, it is amply clear that several parts of the EIA/EMP have been prepared simply based on „copy-paste“ approach, without application of mind and considerations of site specific factors for crucial aspects such as Risk Assessment and Disaster Management. Above is a representative and not exhaustive list, indicating a casual approach towards the preparation of the EIA report on the Project Proponents part. So, in light of the allegations of significant plagiarism and above mentioned observations, the MoEFCC may take necessary action on the relevant stakeholders.

2. Absence of FGD in plant layout, and consequent processes:

PP has contended that the plant will comply with MOEFCC notification dt. 7th December 2015 regarding stack emission, and that FGD will be installed. EAC asked PP about the location of FGD in the plant layout. In response to this query, PP admitted that FGD has not been included in the plant layout yet. Similarly, FGD and associated processes are also not covered in water balance, process flow and mass balance calculations.

In light of this, the plant layout needs to be revised to include FGD and allied equipment / processes, and various plant processes need due consideration of issues like disposal of sludge in solid waste management, sulphur balance, water balance etc.

3. Absence of crucial details and data regarding water withdrawal and availability: In response to a query regarding specific water withdrawal point, PP informed that specific water withdrawal point has not been specified / considered in the EIA. In the absence of specific water withdrawal point, it would not be feasible to assess issues such as sustainability of water even in lean period, ecological impacts arising out of withdrawal of water, downstream uses and impact thereon etc. Further, the committee also observed that crucial data regarding water availability is quite dated and recent data, which is most relevant, has not been considered. For example, in Table 7 regarding monthly observed discharge at Pondugala G & D site, data only upto year 1999 – 2000 has been considered. These deficiencies need to be addressed and adequate study of downstream impact of water withdrawal and water availability during lean period need to be included in the EIA.

4. Need for firm commitment from Irrigation Department to maintain minimum ecological flows in Tungapadu Vagu Additional ToR#7 states that “To sustain the downstream ecology of the Tungapadu Vagu, the Irrigation Department should release minimum ecological flows from the reservoirs constructed in the upstream. (emphasis added). In response, the PP has merely stated that “Irrigation Department will be informed and will be requested to take necessary action....” (Slid. 126 of the presentation). This clearly shows that as yet there is no firm commitment of the irrigation department to release minimum ecological flows. Hence, a firm commitment from irrigation department needs to be obtained and the same should be included in the revised EIA.

5. Explore the feasibility of ACC instead of WCC.

6. Cumulative impact study of various industries in buffer zone has not been made with details on emission data, stack heights and distances from plant site.

7. The impact of fugitive emissions on ambient air quality, with prediction of PM10 and PM2.5 has not been made from the sources such as Coal Handling Plant, Coal Storage yard, Ash Pond, lime handling and storage including gypsum that will be generated from FGD unit. Impact of fugitive emission due to transportation of material is also required to be assessed.

8. The coal linkage documents for imported and domestic coal cannot be considered as firm coal linkage. Imported coal MoU says non-enforceable and also doesn't specify the quality of coal and source of coal is also not specified. The MoC allocation/approval for domestic coal is required.

9. Coal analysis report from BHEL regarding use of blended coal.

10. EIA report as well as subsequent responses by PP indicate substantial confusion and lack of details regarding actual coal unloading and transportation arrangements. Some places it is mentioned that coal will be transported from two ports and some other places four ports are mentioned. Hence, complete and specific details regarding coal import ports and coal transportation routes need to be provided. Clear permissions from Railways and Port Authorities for imported coal should be obtained.

11. ToR 17, details of the mineralogical map from the State Geology Dept. Accordingly, MoC permission.

12. The PP submitted a detailed response to all the recommendations made by the Sub-Committee in its report on the Site Visit in the 50th EAC (T&C) meeting held during 28– 29 January, 2016. The PP should provide action plans on the recommendations relating to restoration of degraded forest areas in the project area and creation of a permanent corpus fund for tribal welfare and adequate compensation for land losers irrespective of their status besides best possible R&R package and extending social welfare schemes and healthcare systems for local communities.

13. As per the EIA report, the soil characteristics suggest that the land in the study area is a fertile land. Therefore, provision should be made to collect the top soil from the project area and preserve for raising plantation, etc.

14. Approximately, 75% and 25% areas are having under the category of forest and non-forest land, respectively. The forest land (including degraded) proposed to be included in the minimum 33% green belt should be treated as rejuvenation of forestland, instead otherwise may be.

15. The PP should give proper & detailed response along with an Action Plan in respect of queries raised during the Public Hearing along with CSR budgetary details provided during the stage of commissioning of the Project.

16. As the public hearing was valid and it was done very recently, the PP should publish public notices in the leading local newspapers, Gram Panchayats, Website of PP etc. along with the intimation that the public can send its comments if any, to the PP and also MoEF&CC on the revised EIA/EMP (which shall be available on Ministry's website, PP's website, Regional Office of SPCB, Gram Panchayat etc.) within 15 days after publication of the public notice.

5. EAC (T) [1st Re-constituted EAC] Minutes -28th Dec, 2016

(2.7.3) Committee noted that the Ministry has written to NABET to initiate necessary action against the M/. Bhagavathi Ana Labs Pvt. Ltd and inform the same in light of plagiarism/„copy-paste" approach in preparation of EIA/EMP. (2.7.4) Committee after detailed deliberations, **exempted M/s TSGENCO Ltd. for re-conducting the Public Hearing** subject to the following conditions:

i. New EIA consultant B.S. Envi-Tech Pvt. Ltd. should own the baseline data collected by the earlier consultant and revise the final EIA as per EAC observations. In this regards, a written commitment should be submitted to the Ministry.

ii. Revised EIA/EMP shall be submitted to Telangana State Pollution Control Board for puploading the revised EIA/EMP on their website for seeking public comments. Notice shall be published in two newspapers preferably one in vernacular language of the locality concerned and another one in English newspapers to seek the public comments/suggestions within 3 weeks from the date of notice.

iii. PP should address all the public comments received within 3 weeks, incorporate the issues & action plan in the revised EIA and submit the final EIA/EMP to the Ministry for further consideration.

6. EAC (T) [5th Re-constituted EAC] Minutes -26th April, 2017

(5.1.4) Committee after detailed deliberations, **recommended for grant of Environment Clearance subject to the following additional conditions** in addition to the specific conditions pertaining to Thermal Power Projects mentioned at Annexure-A2:

i. A written commitment is to be submitted by the PP

that M/s SCCL shall supply coal having ash not more than 30%.

that the incremental GLC values shall not exceed the standards as prescribed vide O.M. dated 07.12.2015.

that the coal transportation shall be done through railway line only.

that during acquisition of land for railway line, no displacement would be made.

that no groundwater will be extracted for construction of project.

That the supercritical Thermal Power Plant will maintain a thermal efficiency as per the Technical Standards notified by CEA.

ii. A minimum e-flow in the lean season is to be ensured at the downstream of water drawl point i.e. near Madachelu of Veerlapalem village of the Krishna river for sustaining the ecology of the river stretches. In this regards, a written commitment is to be submitted by pp.

- iii. Analysis of mercury (Hg) in the coal be re-done once again by using modern technique and submitted.
- iv. Transportation of imported/domestic coal will be made from the port/SCCL mines of Kothagudem area through rail route with tarpaulin covered wagons only.
- v. In case any STPs are located within 50 km distance from the proposed Project then the treated water from the STPs shall be used in the plant.
- vi. A 100 m width on either side of Vagu flowing through the plant site to be earmarked to raise greenbelt.
- vii. Plantation should be raised at the rate of 2,500 saplings per hectre. The tree species should be of local variety having hardened and broad leaves types. Plantation be preferred by using 2 years old seedlings than new seedlings for better survival of plantation.
- viii. Alternate technology may be explored for utilization of fly ash such as road making, etc. by using geo-polymer based technology. Firm MoU may be made with the Cement Manufacturers for utilization of Fly Ash.
- ix. Provision of impervious liner/HDPE lining has been made in the ash pond to prevent any leaching. However, groundwater analysis be carried out at the upstream / downstream of the fly ash pond by creating a network with the existing wells and installing new piezometes and report be submitted that no leaching is taking place due to fly ash dumping.
- x. Skill mapping of the Project Affected People (PAF) be carried out on a long-term basis for their livelihood generation. A report is to be submitted within 3 months to the Ministry from the date of issuance of environmental clearance.
- xi. Modern methods of agriculture organic forming, compost/vermiculture making and utilization, drip/direct to root irrigation) to be promoted in and around the Project area.
- xii. While implementing CSR,
Women empowerment is important. Therefore, proper skill based training/long term livelihood revenue generation be created for all them.
Computer facilities may be provided in the school along with a trained computer teacher to inculcate computer skill among the youths.
Water supply provisions shall be made for all the bio-toilets under Swachh Bharat Abhiyan.
Preventive health programme may be preferred than the curative health programme such as nutrition development of small children in and around the project.

NTPC Ramagundam Thermal Power Plant

1. Extracts of the 45th EAC Meeting held on 29th and 30th October, 2015:

“2. After detailed deliberations, the Committee sought the following information/documents which was either not available in the EIA/EMP report or not appropriate. Accordingly, the proposal was **deferred**.

- I. Commitment and Action Plan for compliance to the Ministry's Notification dated 02.01.2014 regarding use of coal with ash content not exceeding thirty-four per cent, on quarterly average basis.
- II. Detailed note on rise in temperature in consultation with IMD. The data shall be as old as possible.
- III. Certification from the concerned authority that the site is not located on economically feasible mineable mineral deposit (ToR 15).
- IV. Occupational Health and epidemic health disorders survey of the study area.
- V. The Quality of effluent from ash pond vis-à-vis the River water quality. The impact on agricultural fields in terms of heavy metal in food chain and ground water/soil.
- VI. Plan for recycling and reuse of ash pond effluent after minimizing the discharge of cooling water blow down etc. to the ash pond. No untreated ash pond effluent shall be discharged.
- VII. Detailed report on water drawl, water channels and diversion duly certified by the Irrigation & Flood Control Department of the State Government.
- VIII. Satellite map showing the existing green belt. Revised plant layout by maintaining thick three-tier green belt in minimum 33% area.
- IX. As committed, revised CSR action plan for the proposed expansion with a minimum budget of Rs. 20 Crores (only for the construction phase).
- X. Budgeted Action plan for the Public Hearing issues.

- XI. Reply to the representation received by the EAC, a copy of which was provided to the PP.*
- XII. Revised AAQ modeling results.*
- XIII. Commitment for installation of FGD.*
- XIV. Detailed document/permission for tapering coal linkage.*
- XV. All the discrepancies, if any, in the EIA/EMP shall be addressed and submitted.”*

2. Extracts of the 46th EAC Meeting held on 26th – 27th Nov, 2015:

“3. Based on the information/document provided by the Project Proponent and clarification provided during detailed discussions held on all the issues, the Committee recommended the project for environmental clearance subject to stipulations of the following additional specific conditions:

- I. As the Satellite Imagery submitted was not clear, a clear satellite imagery shall be submitted to the Ministry and its R.O. Further, latest authenticated satellite imagery shall be submitted on an annual basis to the Ministry and its R.O. to monitor the alterations of the area.*
- II. The PP shall ensure compliance to the Ministry’s Notification dated 02.01.2014 regarding use of coal with ash content not exceeding thirty-four per cent, on quarterly average basis. This is to be ensured by incorporating a condition in the MoU/FSA with CIL etc. Also, if required, coal washery shall be installed.*
- III. The Sulphur and ash content of coal shall not exceed 0.5% and 34 % respectively. In case of variation of quality at any point of time, fresh reference shall be made to the Ministry and suitable amendments to the environmental clearance will have to be sought.*
- IV. FGD shall be installed as the emissions are found to be almost reaching threshold limit of 80 unit (for the worst case scenario) and also considering the cushion w.r.t NAAQS.*
- V. NTPC shall endeavor to enter into MoUs with NHAI, Associations of Cement Industries and Municipal Authorities for ensuring ash utilization in roads construction and cement manufacturing.*
- VI. The PP shall examine possibility of relocating the ash pond. In case, the relocation of ash pond is not possible, precautionary measures by providing maximum green belt between ash pond and reservoir etc. shall be undertaken.*
- VII. Study shall be conducted regarding the impact on agricultural fields in terms of heavy metal in food chain and ground water/soil for a period of one year and the report submitted to the Ministry.*
- VIII. The Ash Water Re-circulation System (AWRS) shall be immediately installed for the existing TPP. Till that time, the ash pond effluent shall not be discharged into agricultural fields etc.*
- IX. The PP shall enhance the green belt of the existing TPP in compliance to the earlier EC conditions etc.*
- X. Long term monitoring of temperature shall be undertaken on-site and off-site of the TPP, as data of decrease in temperature needs to be verified. Further, requisite corrective action shall be taken based on the findings of the monitoring.*
- XI. As the data for the health studies was more than five years old, a fresh Occupational Health and epidemic health disorders survey of the study area (10 km radius) shall be conducted and the report submitted to the Ministry and its R.O. within one year.*
- XII. As committed, a minimum amount of Rs. 20 crores shall be earmarked as capital cost for CSR activities and the recurring cost per annum shall be as per the CSR policy of GOI till the operation of the plant commences.”*

Kothagudem Thermal Power Plant (KTPS)

1. Extracts of the 54th Meeting of the reconstituted Expert Appraisal Committee (Thermal) held on August 6-7, 2012:

“The Committee noted that presently there are 11 operating units with installed capacity of 1,720 MW in the power station comprising of Stage-I: 4x60 MW; Stage-B&C: 4x120 MW; Stage-V: 2x250 MW; and Stage-VI: 1x500 MW. That some of these plants were very old and needed to be phased out. The Committee also observed that fly ash utilization appeared to be poor and the project proponent need to indicate concrete action plan with commitment for efficient fly ash utilization and management. The Committee therefore decided that no additional ash pond can be permitted for the expansion proposal. The Committee also decided that no further expansion besides Stage-VII can be permitted in the power station”.

“The project proponent informed that 60 MW and 120 MW units will be phased out. Based on the information provided and presentation made, the Committee prescribed the following specific ToR over and above the standard ToRs for undertaking detailed EIA study and preparation of EMP.

- i) Prior approval from the Standing Committee of the National Board of Wildlife shall be first obtained before application for environmental clearance is submitted.*
- ii) Time schedule for phasing out 60 MW and 120 MW units shall be prepared and submitted.*
- iii) Commitment stating that no further expansion shall be applied for beyond Stage-VII shall be submitted to the Ministry.*
- iv) Details of ash pond and action plan for study of heavy metals in the existing ash pond area shall be submitted.*
- v) Status of compliance to the conditions stipulated in EC/NOC of the earlier phases shall be submitted along with details pertaining to CSR activities carried out.*
- vi) Action plan for carrying out long term study of radio activity, heavy metals from coal to be used and reputed institute identified for the task shall be formulated. The plan shall comprise of an in-built continuous monitoring mechanism for radio activity and heavy metals in coal and fly ash (including bottom ash)”.*

2. Extracts of the 32nd meet of Expert Appraisal Committee (Thermal Power) held on 23rd-24th Feb, 2015:

EAC took cognizance of the certified compliance report of the MoEF's RO for the monitoring done on 18th and 19th Nov, 2014 for compliance of EC conditions by the existing Units. Inter alia, the PP submitted that, “ash pond water is being discharged in the nearby agriculture fields after decantation of ash water as per the request of the farmers only as a special case particularly during drought period. TSS of the decanted ash water is well within the statutory limits”.

The Public hearing/public consultation was conducted by the State Pollution Control Board on 25.07.2014. It was noted that the issues raised in the public hearing include regularization of the services of outsourcing employees, employment to locals, compensation to land losers, uninterrupted power supply in the Paloncha Town, CSR activities, taking back of 409 Nos. of ST casual labourers (EPF issue), justice for the tribal people in terms of jobs, welfare etc. The Committee discussed the issues raised in Public Hearing, the responses made by Project Proponent including the action plan for compliance”.

*After detailed deliberations, the Committee sought the following information and **deferred** the proposal*

- (i) Action plan along with MoUs etc. for fly ash utilization.*
- (ii) Commitment for no additional land for ash dyke. Fly ash utilization shall be enhanced and the existing ash dykes shall be utilized for disposal of the unutilized ash.*
- (iii) Action plan for rehabilitation of the existing ash dykes.*
- (iv) Drainage pattern of the area*
- (v) Commitment for STP with timeline*

- (vi) Details of existing effluent treatment
- (vii) AAQ data, annual average and January-February, 2015 data along with calibration certificate.
- (viii) Commitment for phasing out all the old units of 60 and 120 MW by 2018-19.

3. Extracts of the 36th Meeting of the reconstituted Expert Appraisal Committee (Thermal Power) held on 19th - 20th May, 2015:

PP made a further presentation along with their environmental consultant, Ramky Enviro Engineers Ltd., Hyderabad and inter-alia provided the following information, as sought for in the previous EAC meetings.

- (i) *Although the fly ash utilization during 2014-15 is only 15.89%, the same is picking up due to promotional measures being taken up by the Government of Telangana/TSGENCO for capacity additions of cement plants and installation of new cement plants. Currently, 8 cement industries are lifting fly ash from the existing units under KTPS I to VI stages. There are about 25 Brick Industries around KTPS complex being run by private agencies to whom the fly ash is being given from KTPS. Further, KTPS complex is also running and maintaining two brick industries on their own and manufacturing around 15,000 bricks per day on an average. All the construction in KTPS complex was carried out using fly ash bricks only and the same is proposed for this 1x800 MW Unit also. It is planned to utilize 100% fly ash from the existing units of KTPS complex (I to VI stages) in the manufacture of Cement, Bricks/Blocks/RMC & Others by 2018-19.*
- (ii) *Three cement companies have come forward to lift fly ash from the proposed 1X800 MW Unit (Stage-VII). The Letter of Intents/requests received from the said companies have been submitted and entering of MoUs is under process. It is planned to utilize 100% fly ash from the proposed Unit in the manufacture of Cement, Bricks/Blocks/RMC & Others by 2020- 21.*
- (iii) *As directed by the EAC, TSGENCO is committed to utilize the existing ash ponds for disposal of ash generated from the proposed expansion unit and also no additional land will be acquired for ash dyke. An undertaking in this regard is already furnished vide letter dated 02.05.2015.*
- (iv) *The existing ash ponds will be utilized for its full capacity and these will be rehabilitated by undertaking mass plantation. Already plantation has been taken up in 130 acres of abandoned ash pond and is being maintained. The photographs showing the green belt were submitted.*
- (v) *The drains from KTPS I-IV stages are connected to sedimentation tank for settlement of suspended matter and only clear water is being let out into the Karakavagu. The drains in the KTPS Stage - V are also connected to two silt chambers for settlement of suspended matter and only clear water is let out into the Karakavagu. However, separate sedimentation tank with recirculation system is also planned for 2x250 MW KTPS-V Stage. The consultancy has already been placed and the work will be taken up & completed by end of August, 2016. The drawings showing the existing and proposed drainage pattern were presented. For KTPS-VI Stage (1X500 MW), ETP with re-cycling system is available for ensuring zero discharge. The treated water in the ETP is being used for cooling tower make up, for ash slurry, green belt development and floor wash. Analysis of existing effluents discharged from sedimentation tank, DM plant and other outlets of KTPS Stage I to IV and KTPS Stage V&VI were also presented.*

- (vi) *A provision has been made in the project cost of 1X800 MW expansion Unit for installation of Sewage Treatment Plant (STP) in the residential township of KTPS duly connecting all the existing & proposed quarters to be constructed under KTPS-VII stage. The construction of STP will be taken up on priority basis immediately and will be commissioned by the end of April, 2016. The commitment letter in this regard has already been submitted.*
- (vii) *AAQ data, annual average and January-February, 2015 data along with calibration certificate was submitted. Few values of PM10 have exceeded the limits for which necessary corrective measures are being taken. At present, online AAQ Station is available in the Residential Colony of KTPS Complex and procurement of two more online AAQ Stations is under process and will be installed by the end of June, 2015 as assured during the EAC meeting held on 24-02-2015. Commitment letter dated 02.05.2015 for procurement & installation of two more online AAQ Stations has already been submitted.*
- (viii) *The old units (4 x 60 MW), commissioned during 1966 & 1967 were renovated and modernized in the year 1998-2004 with a total investment of Rs. 604 Crores and their performance is satisfactory. The 4x120 MW units which were established during the years 1974 to 1978 will be phased out by the end of 2019. Earlier it was stated that 4x60 MW will be phased out in 2023-24, keeping in view of present power crisis. However, as directed by the Committee, TSGENCO will take up phasing out of all 4x60 MW and 4x120 MW units by the end of 2019. The commitment letter dated 02.05.2015 signed by the CMD, TSGENCO in this regard has already been submitted.*

3. *The Committee has received a communication from ERC, New Delhi raising certain issues on the EIA/EMP of the proposed project and the non-compliance of the existing Units. The reply of PP on the issues raised and compliance report from the Telangana State Pollution Control Board (TSPCB) for the directions issued were sought. The same have been submitted by the PP and examined by the Committee.*

4. *TSPCB vide letter dated 21.05.2015 has informed the Ministry that they have been regularly reviewing the status of Pollution Control by the existing Units of KTPS. The Board has reviewed KTPS Units and issued directions on 03.12.2014 to ensure compliance of pollution control norms. Subsequently, KTPS took certain specific measures to control the pollution. KTPS vide letter dated 07.03.2015 has submitted time bound action plan to comply with the various directions issued by the Board, by April, 2016. The TSPCB satisfied with steps taken and action plan submitted by TSGENCO has issued Consent for Operation on 20.03.2015 (for stage-V) and 27.03.2015 (for stage-I to IV) for a period upto 30.09.2016. The Board has been regularly monitoring the Units to ensure that the industry complies with all the pollution control norms. The time lines for taking up the remaining works as submitted by the TSGENCO vide letter dated 21.05.2015 has been considered by the Board and the TSGENCO has been directed to take necessary steps to ensure the timely completion of the above works. In view of the above, the application for EC for the proposed expansion Unit of 1x800 MW, KTPS VII stage may be considered for approval.*

5. *The Committee noted that the directions issued by SPCB are for Stages I-V and the PP has already committed to Phase out all the 4x60 MW and 4x120 MW units (commissioned during 1966-67 and 1974-78 respectively) of Stages I-IV by the end of 2019. However, the PP needs to ensure that these Units are complying with all the norms till they are operational.*

6. *Based on the information and clarifications provided by the Project Proponent, TSPCB and detailed discussions held on all the issues including the power situation of the newly formed Telangana State, the Committee **recommended the project for environmental clearance** subject to stipulation of the following additional specific conditions:*

- I. The TSPCB and Ministry's R.O. shall jointly monitor all the existing Units of KTPS on a six monthly basis till they are satisfied with the compliance. Further, TSPCB shall only accord CTO for Stage-VII after all the existing Units of KTPS are in total compliance to the norms.*
- II. As committed, all the 4x60 MW and 4x120 MW units of Stages I-IV shall be phased out latest by the end of 2019.*
- III. As committed, the existing ash ponds shall be utilized for disposal of ash generated from the proposed expansion unit and also no additional land shall be acquired for ash pond.*
- IV. As committed, the construction of STP shall be taken up on priority basis immediately and shall be commissioned latest by the end of April, 2016*
- V. Latest authenticated satellite imagery shall be submitted on an annual basis to monitor the alterations of the area.*
- VI. The Sulphur and ash content of coal shall not exceed 0.62% and 38 % respectively. In case of variation of quality at any point of time, fresh reference shall be made to the Ministry for suitable amendments to the environmental clearance.*
- VII. Fly ash utilization notification of MoEF&CC should be followed. Explore the possibility of setting up cement plant and enhance the brick manufacturing capacity.*
- VIII. The ground water quality shall be monitored in and around all the ash ponds.*
- IX. To mitigate dust pollution, a thick green belt should be developed around the plant and Ash dyke area.*
- X. Health Surveys of the people living in 10 sq. km. radius of the plant complex should be carried out annually with respect to respiratory disorders.*
- XI. As committed, a minimum amount of Rs. 21.16 Crores shall be earmarked as capital cost for CSR activities and Rs. 4.23 Crores/annum or the amount as per the CSR policy of GOI whichever is higher shall be earmarked as recurring cost per annum till the operation of the plant.*

14. Key Extracts from the Report of Comptroller and Auditor General (CAG) on Performance Audit on 'Environmental Clearance and Post Clearance Monitoring (Report 39 of 2016)

The Comptroller and Auditor General (CAG) submitted a Report on *Performance Audit on 'Environmental Clearance and Post Clearance Monitoring'* to the Parliament in March, 2017. Based on a comprehensive assessment of the EC and post-EC regime and situation across states, the Report, sought to examine whether the process of grant of Environmental Clearance is carried out in a timely and transparent manner and compliance of EC conditions ensured by the concerned authorities as well as through proper monitoring by the regulatory / supervisory bodies.

Amongst other serious observations, the Report noted that, "in 25 per cent cases, the Environment Impact Assessment reports did not comply with Terms of Reference and in 23 per cent cases they did not comply with the generic structure of the report. Cumulative impact studies before preparing the Environment Impact Assessment reports was not made a mandatory requirement, thus the impact of a number of projects in a region on the ecosystem was not known. Ministry had not followed due process in issue of Office Memoranda and the Office Memoranda so issued had the effect of diluting the provisions of original notification."

(Paragraphs 2.5, 2.6 and 2.7)

There was no provision for the Project Proponents to fulfill their commitments in a time bound manner and to ensure that the concerns of the local people were included in the final Environment Impact Assessment report/Environmental Clearance letter. The public hearing process did not have quorum requirement and qualification of residency to participate in the public hearing process. Commitments made by Project Proponents in Environment Impact Assessment report during public hearing were also not monitored. Besides, the reservations expressed during the public hearings were not included in the Environment Impact Assessment reports.

(Paragraph 2.14)

The annual environmental audit report was not submitted by Project Proponents to State Pollution Control Boards/Union Territory Pollution Control Committees in 19 *per cent* of the cases and in seven *per cent* of the cases construction/operations was commenced before grant of Environmental Clearance.

(Paragraphs 3.8 and 3.9)

There were only 15 scientists available for monitoring of Environmental Clearance conditions against sanctioned strength of 41. Regional Offices have not been delegated the powers to take action against the defaulting PPs and they had to report the violations of the Environmental Clearance conditions to the Ministry.

(Paragraph 7.5 and 7.6)

The Ministry did not have a database of cases received by it where the violations were reported by Regional Offices. No penalty was imposed by the Ministry for violating conditions of Environmental Clearance in the last two years.

(Paragraph 7.8)

Clear cut responsibilities were not assigned to State Pollution Control Boards/Union Territory Pollution Control Committees under Environment Impact Assessment Notification 2006 regarding post Environmental Clearance monitoring.

(Paragraph 8.2)

State Pollution Control Boards/Union Territory Pollution Control Committees did not have in place sufficient infrastructure and manpower for monitoring despite having sufficient funds.

(Paragraph 8.6)

Recommendations

Based on the audit findings, the following recommendations are made:

- i. MoEF & CC may take suitable action in consultation with NIC for revalidation of database and arrive at correct picture of the projects which have been granted EC by the Ministry.
- ii. In order to increase transparency and fairness in grant of EC, MoEF&CC may streamline the processes including adhering to the timelines as per the EIA Notification.
- iii. MoEF & CC, while scrutinizing the EIA reports, may ensure that they are as per the ToR, comply with the generic structure, baseline data is accurate and concerns raised during the public hearing are adequately addressed.
- iv. MoEF & CC may evaluate the entire process of EIA by involving all stakeholders, following legal processes and make suitable amendments in EIA Notification 2006 rather than resorting to Office Memorandums.
- v. MoEF & CC may grant fresh EC to the PPs only after verifying the compliance to the earlier EC conditions.
- vi. MoEF&CC may adhere to its circular of 2010 on EC of coal linked mine for Thermal and Metallurgical projects so that firm coal linkage is available and the status of environment and forestry clearance of the coal sources i.e. the linked coal mine/coal block is known.
- vii. MoEF&CC may consider bringing conditions of EC compatible with the nature and type of project in order to avoid non-uniformity in similar kind of projects.
- viii. The EIA reports/EC letters should clearly mention cost of activities under EMP and ESR along with the timelines for their implementation.
- ix. MoEF&CC may consider making EMP/EC condition(s) more specific for the area to be developed under Green belt and species to be planted in consultation with Forest/Agriculture Department along with post EC Third Party evaluation.
- x. MoEF&CC may consider endorsing copy of EC letter issued to each project to the Central Ground Water Board/State Agencies to ensure monitoring of Ground Water extraction.
- xi. MoEF & CC should work out strategies in co-ordination among ROs, CPCB, SPCBs/UTPCCs and other Departments of State Governments to strictly monitor the compliance of condition mentioned in the EC periodically.
- xii. MoEF & CC and SPCBs may consider adopting risk based approach to monitor the conditions stipulated in the ECs of the project and devise schedule for percentage check of six-monthly compliance reports and environment statements.

- xiii. MoEF&CC may consider bringing suitable condition by mentioning the name and number of post/posts to be engaged by the proponent for implementation and monitoring of environmental parameters.
- xiv. MoEF&CC may consider bringing the mandatory EC conditions on installation of monitoring stations and frequency of monitoring of various environment parameters in respect of air, surface water, ground water noise, etc.
- xv. MoEF & CC may in consultation with SPCBs introduce a system of surprise check by the SPCBs at premise of PPs to verify the third party testing of environmental parameters.
- xvi. MoEF&CC may issue advisory to the State Government regarding implementation and monitoring of the action plan of critically polluted area at regular intervals.
- xvii. MoEF & CC may put in place mechanism to ensure that the compliance reports are regularly and timely received and uploaded by PPs and the Ministry on their websites.
- xviii. MoEF & CC may take expeditious measure to have the requisite number of scientists in place in the respective ROs.
- xix. MoEF & CC should evolve a system by delegating powers to ROs for taking action against the defaulting PPs.
- xx. MoEF & CC should have a system in place where the reports of violation received from ROs are compiled and constantly monitored in coordination with the ROs for ensuring that the PPs comply with EC conditions and take action as per law.
- xxi. MoEF & CC may issue directive to the State Government to frame modalities clearly delegating responsibility of monitoring the compliance to EC letter and commitments made in the EIA reports.
- xxii. MoEF & CC may issue advisory to SPCBs/UTPCCs for periodical monitoring after grant of CTE and CTO to Project Proponents.
- xxiii. MoEF & CC may advise the State Governments to strengthen the infrastructure and manpower of SPCBs so that they properly monitor the EC conditions of the project running in their jurisdictions.

15. Relevant Extracts of the Rehabilitation & Resettlement (R&R) Policy¹⁴⁶ (July, 2017) of National Thermal Power Corporation

1.2.4 Entitlements for Compensation as well as R&R benefits

GOI has notified recently The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013¹⁴⁶ (RFCT LARR Act, 2013) covering compensation for both land acquisition and R&R entitlements for project affected families. NTPC stands committed to follow the envisaged provisions in RFCT LARR Act, 2013 in totality in manner and as per procedure as laid down in the Act.

1.2.5 Transparency

Consultation and participation of PAFs and their representatives along with proper documentation will be encouraged to ensure transparency in addressing R&R. A conducive environment of fairness, trust, confidence and co-operation in arriving at a settlement preferably through broad consensus among majority or thru a consultative mechanism like „Village Development Advisory Committee (VDAC)“ / District Administration / mechanisms as per RFCT LARR Act, 2013 / State Government directives, etc will be ensured.

1.2.7 Social Impact Assessment (SIA)

Whenever it is desired to undertake land acquisition for a new project or expansion of an existing project or additional land required for any component of a project, a Social Impact Assessment (SIA) as per provisions of RFCT LARR Act, 2013, Chapter-II, will have to be carried out prior to initiation of land Acquisition process. Guidelines on the same as and when prescribed by the Government from time to time will be followed in this regard.

1.2.9 Social Impact Evaluation (SIE)

A Social Impact Evaluation (SIE) will be undertaken after the completion of implementation of R&R Plan / Scheme to evaluate the impact of the R&R program preferably by an independent agency.

1.2.12 Effective monitoring of R&R measures

Adequate arrangements will be made for effective and timely supervision, internal and external monitoring and evaluation of the implementation of the R&R measures.

1.3 Employment

Keeping in view that the NTPC Projects are capital intensive with state-of-the-art technology and, therefore, do not offer much direct job opportunity, employment with NTPC would be severely restricted. NTPC would therefore encourage other non-employment rehabilitation options in the form of onetime cash grants, annuity etc. However, in case of any such opportunities arising at the project, preference would be given to PAFs subject to suitability and availability.

¹⁴⁶ www.ntpc.co.in/r-and-r-policies/7504/r&r-policy-2017

1.8 MOEF stipulations on R&R

Any specific R&R conditions / stipulations as part of any clearances eg. MOEF clearance, SIA clearance, SPCB clearance / consent etc and also the stipulations of other Ministry shall also be made part of R&R Plan / Scheme.

2.14 Budget for R&R

The implementation of R&R Plan / Scheme is considered as part of the project activity and the Budget for R&R / Scheme will be part of the capital cost of the project. R&R budget shall vary for different projects and shall be based on size and location of the project and the number of people / villages being affected

4.I Consultation and Participation

The consultation with PAFs and NGOs are vital for assessing their requirement of R&R. This will be done by NTPC in a participative manner through following formal mechanisms.

4.1.1 Public Information Centre (PIC)

To maintain transparency and keep PAFs informed, NTPC will establish PICs at projects where relevant documents would be kept for reference for the period of formulation and implementation of R&R Plan / Scheme. PAFs will also be encouraged to register their queries / grievances at PIC. The R&R staff will be available at PICs for interacting with PAFs. The PIC shall function till completion of R&R Plan / scheme. In order to generate awareness among the villagers, journals related to Govt. sponsored schemes, agro based information and micro business opportunities could also be kept in PIC.

4.1.2 Village Development Advisory Committee (VDAC)

For institutionalizing the stakeholder consultation for preparation and implementation of R&R Plan / Scheme in a participative manner, NTPC shall establish multi stakeholder consultative mechanism like VDACS for the period of formulation and implementation of R&R Plan / Scheme or facilitate the Appropriate Government to set up participative/ consultative mechanisms as envisaged in RFCT LARR Act, 2013/ State Government directives etc.

16. Relevant Extracts from the Judgments of the Hon'ble Supreme Court, High Courts and National Green Tribunal

Relevant Extracts from the Judgment dt. 4th May, 2012 of the Hon'ble High Court of Himachal Pradesh (Shimla) in Him Parivesh Environment Protection Society & Anr versus State of Himachal Pradesh & Ors¹⁴⁷

105. The principle of “*polluter pays*” is a principle which has become a part of our environmental legal jurisprudence and reference in this behalf may be made to the following judgments of the Supreme Court:

- I) M.C. Mehta and another vs. Union of India and others, AIR 1987 SC 965.
- II) Vellore citizens' Welfare Forum vs. Union of India and others, (1996) 5 SCC 647.
- III) Indian Council for Enviro-Legal Action, etc. vs. Union of India and others etc., AIR 1996 SC 1446.
- IV) Indian Council for Enviro-Legal Action vs. Union of India and others, (2011) 8 SCC 161.

108. As observed by us above, we are of the view that if the officials who manned the important organizations like the Pollution Control Board, the Ministry of Environment and Forests and the members of the EAC had conscientiously discharged their duties, the situation would not have reached this unfortunate stage. We are also of the considered view that JAL could not have succeeded in its illegal endeavour to establish the plant and get permissions without the active connivance of some officials who may have either knowingly, for extraneous reasons, abetted the activities of JAL or they were totally callous and negligent in discharging their duties.

109. We also are of the view that certain guidelines need to be issued to ensure that such events do not re-occur in future and accordingly issue the following guidelines:

- a) The H.P. State Pollution Control Board shall ensure that consent to establish is not granted just for the asking. Even at the time when consent to establish is granted the H.P. State Pollution Control Board, MoEF/EAC shall verify the facts stated in the project report and they shall also indicate to the project proponent what are the para-meters and the laws which the project proponent will have to comply with keeping in view the nature of the project.
- b) The statement made by the project proponent shall not be accepted without verification. It shall also be made clear that if any statement made by the project proponent is found to be false the permissions granted shall automatically stand cancelled.
- c) The Pollution Control Board shall ensure that whenever any public hearing is held, the people of the area are well informed about the public hearing and they are also informed about the benefits and the ill-effects of the project. The Pollution Control Board must have its own machinery and own scientists who should give an independent opinion on the pros and cons of the project. These shall also be placed on the website of the PCB.

¹⁴⁷ <https://www.elaw.org/system/files/Jaypee%20case%20order%20HP%20CWP5862010.pdf>

d) In future whenever any studies are being carried out by any project proponent while preparing the EIA reports, the study shall be carried out only after notice to the State Pollution Control Board, MoEF/EAC in case the project requires clearance at the central level and also to the inhabitants of the area where such studies are to be carried out and project has to be established. Notice to the public shall be given in the same manner notice of public hearing is given.

Relevant Extracts from the Judgment dt. 26th November, 2009 of the Hon'ble High Court of Delhi in Utkarsh Mandal versus Union Of India & Ors¹⁴⁸

31. The purport of the above clauses is to make the public hearing a meaningful one with full participation of all interested persons who may have a point of view to state. The above clauses operationalise the de-centralised decision making in a democratic set up where the views of those who are likely to be affected by a decision are given a say and an opportunity to voice their concerns. This procedure is intended to render the decision fair and participative and not thrust from above on a people who may be unaware of the implications of the decision. In the above background, it is not possible to agree with the stand of the Respondents 1 and 3 that there is no requirement in terms of the above clauses to make available the Executive Summary of the EIA Report Project available to the persons likely to be affected at least 30 days in advance of the public hearing. If their participation has to be meaningful, informed and meaningful, then they must have full information of the pros and cons of the proposed project and the impact it is likely to have on the environment in the area.

32. What is important to understand in this context is that the information about the project and in particular about the EIA report is not available to anyone in the public domain till the time of the public hearing. Till such time it is available only to the project proponent and the MoEF. Unless it is required to be made available mandatorily, it is unlikely that any member of the affected public can have access to such information. It is imperative for the affected person to be fully informed of the proposal (the EMP) submitted by the project proponent for dealing with the likely environmental damage that can be caused if the project is granted clearance. If this is the intent behind the introduction of the above clause in the EIA notification, then the contention of the Union of India that there is no need for the Executive Summary to be made available 30 days prior to the date of the public hearing is not legally tenable.

33. In this context a reference may be made to the decision of the Supreme Court in *People's Union for Civil Liberties v. Union of India* (2003) 4 SCC 399 where in the context of declaring the right to vote as being part of the fundamental right of expression of the voter under Article 19 (I) (a) of the Constitution of India, it was held that "a well informed voter is the foundation of democratic structure." In his leading opinion M.B.Shah., J. observed (SCC, p. 432): "(the) right to participate by casting vote at the time of election would be meaningless unless the voters are well informed about all sides of the issues, in respect of which they are called upon to express their views by casting their votes. Disinformation, misinformation, non-information, all equally create an uninformed citizenry which would finally make democracy a mobocracy and farce." In his concurring opinion P.V.Reddi. J., explained that (SCC, p.454) "the right of the citizens to obtain information on matters relating to public acts flows from the fundamental right enshrined in Article 19(I) (a)."

34. The public hearings conducted by the MOEF in terms of the EIA Notification dated 14th September 2006 is indeed a public act and the EIA Report is certainly a matter relating to such a public

¹⁴⁸ <http://lobis.nic.in/ddir/dhc/SMD/judgement/30-11-2009/SMD26112009CW93402009.pdf>

act of the central government. The construction that has to be placed on the Clause 2.4 read with Clause 3 must be such that will enhance the quality of the ultimate decision taken and also consistent with the requirement of the participation of those affected in a fully informed and effective manner. The opportunity to participate and voice an opinion on the project has to be a meaningful one. It can be rendered ineffective by not insisting that the Executive Summary should also be made available 30 days in advance of the public hearing. We are therefore unable to agree with the conclusion of the NEAA that merely because no time limit is expressly provided for making available the Executive Summary, there was no procedural infraction in making it available only 9 days prior to the date of public hearing in the present case.

36. The next issue concerns the failure on the part of the EAC (Mines) to deal with the objections raised at the public hearing and the effect of such failure on the grant of environmental clearance. In the first place it needs to be noted that the MoEF has constituted the EAC (Mines) as a twelve member body for evaluating the Project proposal as well as the EIA Report and advise the government on whether environmental clearance should be granted. It is in essence a delegate of the MoEF performing an "outsourced" task of evaluation. The decision of the EAC may not necessarily be binding on the MoEF but is certainly an input into the decision making process. Considering that it constitutes the view of the expert body, its advice would be a valuable input. In terms of the procedure evolved by the MoEF to deal with applications for EIA clearance, the objections at the public hearing and the response thereto of the project proponent are placed before the EAC (Mines) for evaluation and for taking a decision which will constitute the advice to the MoEF on such project proposal. The EAC is therefore performing a public law function and is expected to adhere to those very standards which law requires the MoEF to adhere to.

37. The requirement of an administrative decision making body to give reasons has been viewed as an essential concomitant of acting fairly. Given that such a decision is in any event amenable to judicial review, the failure to make known the reasons for the decision makes it difficult for the judicial body entrusted with the power of reviewing such decision as to its reasonableness and fairness. The decision must reflect the consideration of the materials available before the decision maker and the opinion formed on such material.

40. Para 4 of the EIA notification defines Appraisal as: "Appraisal means the detailed scrutiny by the Expert Appraisal Committee or State Level Expert Appraisal Committee of the application and other documents like the EIA report, outcome of the public consultations including public hearing proceedings, submitted by the applicant to the regulatory authority concerned for grant of environmental clearance....." (emphasis supplied) Consequently, the exercise expected to be performed by the EAC (Mines) is a serious one and has to include a consideration on merits of the objections raised at the public hearing. Its decision must reflect this. We do not accept the contention of the learned ASG that as long as the MoEF while taking the ultimate decision has applied its mind to the objections raised at the public hearing, the requirement in law would be satisfied. The whole purpose of "outsourcing" the task to an EAC comprised of experts was to have a proper evaluation of such objectives on the basis of some objective criteria. It is that body that has to apply its collective mind to the objections and not merely the MoEF which has to consider such objections at the second stage. We therefore hold that in the context of the EIA Notification dated 14th September 2006 and the mandatory requirement of holding public hearings to invite objections it is the duty of the EAC, to whom the task of evaluating such objections has been delegated, to indicate in its decision the fact that such objections, and the response thereto of the project proponent, were considered and the

reasons why any or all of such objections were accepted or negated. The failure to give such reasons would render the decision vulnerable to attack on the ground of being vitiated due to non-application of mind to relevant materials and therefore arbitrary.

Relevant Extracts from the Judgment dt. 12th May, 2006 of the Hon'ble Supreme Court in Karnataka Industrial Areas Development Board versus C. Kenchappa & Ors¹⁴⁹

The importance and awareness of environment and ecology is becoming so vital and important that we, in our judgment, want the appellant to insist on the conditions emanating from the principle of 'Sustainable Development'.

- (1) We direct that, in future, before acquisition of lands for development, the consequence and adverse impact of development on environment must be properly comprehended and the lands be acquired for development that they do not gravely impair the ecology and environment.
- (2) We also direct the appellant to incorporate the condition of allotment to obtain clearance from the Karnataka State Pollution Control Board before the land is allotted for development. The said directory condition of allotment of lands be converted into a mandatory condition for all the projects to be sanctioned in future.

This has been an interesting judicial pilgrimage for the last four decades. In our opinion, this is a significant contribution of the judiciary in making serious endeavour to preserve and protect ecology and environment in consonance with the provisions of the Constitution. Sustainable use of natural resources should essentially be based on maintaining a balance between development and ecosystem. Coordinated efforts of all concerned would be required to solve the problem of ecological crisis and pollution. Unless we adopt an approach of sustainable use, the problem of environmental degradation cannot be solved. The concept of sustainable development was propounded by the 'World Commission on Environment and Development', which very aptly and comprehensively defined it as 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs'. Survival of mankind depends on following the said definition in letter and spirit.

Relevant Extracts from the Judgment dt. 13th March, 2014 of the Hon'ble National Green Tribunal in M.P. Patil versus Union Of India & Ors¹⁵⁰.

40. R & R is an essential feature of any project which comes up for consideration before the competent authorities in accordance with the EIA Notification.

44. As is evident from the above, submission of a comprehensive R&R scheme was of paramount consideration right from the initial stages of drawing up the TOR till even after passing of the order of EC. Submission of such scheme, despite being so significant, had not been submitted by NTPC even after passing of the order of EC.

¹⁴⁹ <https://indiankanoon.org/doc/992326/>

¹⁵⁰ <https://indiankanoon.org/doc/58003943/>

54. A perusal of the documents placed on record by the NTPC leads one to observe that in the case of the Kudgi STPP, the NTPC R&R policy seems to be restricted to paper only and the ground reality is that the NTPC has not even bothered to prepare the list of project-affected persons although about two years have passed from the date of issuance of Land Acquisition notice.

82. Public hearing/public consultation is one of the most significant requirements which the authorities concerned are required to satisfy before an EC could be issued in accordance with law. The EIA Notification attaches a specific value and makes the public hearing/public consultation mandatory, non-compliance of which could have serious repercussions on the fate of the application for EC and the order thereupon. At this stage, we must clarify that public consultation and public hearings are not synonymous terms. However, the purpose of both of them is the same i.e. to provide due opportunity to the project-affected or the project-displaced persons to put up their grievances in anticipation of the project being established at the site in question. In terms of regulation 7 (III) (v) of the EIA Notification, it has been clarified beyond ambiguity that if the public agency or authority nominated, reports to the regulatory authority concerned that owing to the local situation, it is not possible to conduct public hearing in a manner which will enable the views of the local persons concerned, to be freely expressed, it shall report the facts in detail to the regulatory authority concerned, which may, after due consideration of the report and other reliable information, decide that the public consultation in the case need not include the public hearing. The public consultation is stated to have two components, firstly a public hearing at the site or in its close proximity, district-wise and secondly, obtaining responses in writing from all other persons concerned having a plausible stake in the project or activity. Normally, both public hearing and public consultation are required to be complied with. However, as afore-noticed, there could be cases, of course as an exception, where it is not possible to hold public hearing and only public consultation may serve the ends for consideration of an application for EC.

83. Broadly speaking, public hearing is to provide an opportunity to the persons likely to be directly affected by the establishment of the project while the public response, as an ingredient of public consultation, would be from the persons who have some interest in the environmental aspects of the project, but may not even be directly affected persons.

89. The authorities holding the public hearing have to fairly record the objections, the case of the project proponent and their reasoned views on the subject.

90. Reference can also be made to another judgment of Delhi High Court in the case of Samarth Trust v. Union of India and Ors. [Writ Petition (Civil) No.9317 of 2009] wherein while discussing what is the purpose of a public hearing contemplated under the environmental laws, it was held that "A public hearing is a form of participatory justice giving a voice to the voiceless (particularly to those who have no immediate access to courts) and a place and occasion to them to express their views with regard to a project." The nature and scope of a public hearing has to be participatory, objective and in accordance with the manner prescribed under the EIA Notification. It must give adequate notice for effective participation. Public hearing must be conducted in a disciplined manner, faithfully with video-recording done truthfully. Recording of the minutes of the public hearing must be fair.

94. While keeping in mind the precautionary principle and principle of sustainable development, we have to pass directions which will ensure compliance with all the conditions that may be imposed for protection of environment, ecology and prevention of pollution in the proposed order granting the EC. There has to be a definite and unambiguous R&R scheme in place before the project can be permitted to be fully established and completely made operational.

**Relevant Extracts from the Judgment dt. 30th March, 2012 of the Hon'ble National Green Tribunal in
Praffula Samantra & Anr versus Union Of India And Others¹⁵¹**

6.1 It appears that based on certain complaints and representations against the project, the Respondent No. 1 constituted four member committee under the Chairmanship of Ms. Meena Gupta to review the Environment, CRZ and other clearances given by Respondent No. 1, State and local authorities in connection with the project of Respondent No. 3. The members of the Committee could not reach a consensus. In the result, two separate reports, one by Ms. Meena Gupta and the other by remaining three members of the Committee were submitted to the MOEF on 18.10.2010.

6.7 Whereas the majority report says that the PH was not conducted properly and there were many other short comings in compliance of the provisions of EIA report, therefore the EC granted should be annulled and fresh proceedings to be initiated. The reasons furnished in respect of PH are as under:

"The committee is of the view that the Public Hearing held on 15.04.2007 was not in compliance with the rules. The authorities failed to provide copies of the EIA to Panchayat; all the project affected persons were not given opportunity to be heard. It was held in Kujanga about 15 km away from the affected villages. During the hearing, many people complained that because of the prohibitive distance, many villagers could not travel to participate in the Public Hearing. The committee was informed that there was presence of a strong police force at the venue of the public hearing a day prior to the hearing itself. This served as a deterrent to free participation by local villagers, who were opposing the project. Other project affected people like traditional fishing community and farmers were not covered by the public hearing. The social impact of the project was also not discussed. Project proponent has failed to answer all the objections raised during the public hearing. The EAC has failed to apply its mind to the objections raised by various authorities and the public and have also failed to consider the available material on record. The EAC has also failed to record any reasons in respect of accepting or rejecting the objections raised but instead gave clearance. Such mechanical clearance makes a mockery of rule of law and procedural safeguards."

**Relevant Extracts from the Judgment dt. 16th May, 2013 of the Hon'ble National Green Tribunal in
Rudresh Naik Vs. Goa State Coastal Zone Management Authority¹⁵²**

13. Another Constitution Bench of the Supreme Court, in the case of S.N. Mukherjee vs. Union of India (1990) 4 SCC 594, while referring to the English law as well as the judgments of the Supreme Court, stated that the failure to give reasons amounts to denial of justice. A party appearing before the Tribunal is entitled to know, either expressly or inferentially, the reasons stated by the Tribunal, and what it is to which the Tribunal is addressing its mind. The decision should be in the form of a reasoned document available to the parties affected and thus, the party should be informed of the reasons. The Apex Court in the case of Ravi Yashwant Bhoir v. Collector (2012) 4 SCC 407, reiterated that it is a settled proposition of law that even in administrative matters, the reasons should be recorded as it is incumbent upon authorities to pass a speaking and reasoned order. The Court noticed that the expanding horizon of the principles of natural justice provides for the requirement to record reasons unless recording of such reasons is specifically excluded by a Statute.

¹⁵¹ <https://indiankanoon.org/doc/106573119/>

¹⁵² <https://indiankanoon.org/doc/24175247/>

14. Such a view has been expressed by the Supreme Court consistently in the past. In the case of Maharashtra State Board of Secondary and Higher Secondary Education vs. K.S. Gandhi (1991) 2 SCC 716, the Supreme Court had emphasized upon the fact that it is implicit that principles of natural justice or fair play do require recording of reasons as a part of fair procedure. In an administrative decision, its order/decision itself may not contain reasons. Even if it is not the requirement of rules, but at least, the record should disclose reasons. It also held that recording of reasons excludes chances of arbitrariness and ensures a degree of fairness in the process of decision making. The Court also noticed that omission to record reasons may vitiate the order. The Court while noticing that omnipresence and omniscience of the principles of natural justice act as deterrence to arrive at arbitrary decisions in flagrant infraction of fair play, held as under:

"21. Thus it is settled law that the reasons are harbinger between the minds of the maker of the order to the controversy in question and the decision or conclusion arrived at. It also excludes the chances to reach arbitrary, whimsical or capricious decision or conclusion. The reasons assure an inbuilt support to the conclusion/decision reached. The order when it affects the right of a citizen or a person, irrespective of the fact, whether it is quasi-judicial or administrative fair play requires recording of germane and relevant precise reasons. The recording of reasons is also an assurance that the authority concerned consciously applied its mind to the facts on record. It also aids the appellate or revisional authority or the supervisory jurisdiction of the High Court under Article 226 or the appellate jurisdiction of this Court under Article 136 to see whether the authority concerned acted fairly and justly to mete out justice to the aggrieved person.

27. The consistent view of the courts has been that recording of reasons is an essential feature of the principles of natural justice. Natural justice cannot be understood in isolation. It must be examined while keeping in mind the facts and circumstances of a given case. As already noticed, violation of principles of natural justice and its consequences in law would always be relatable to a situation in a given case. Providing of notice, giving a fair opportunity to put forward its case and to record reasons are the essential features of the doctrine of natural justice. It is neither permissible nor prudent to permit violation of these rules and prejudice, though is a relevant consideration, may not always be an indispensable aspect. The cases in which, ex facie, a serious violation of principles of natural justice is shown, the Court or the Tribunal may declare the action invalid and ineffective, even in absence of proven prejudice."

45) Thus, the appraisal of the project requires not only evaluation, but also estimation of works in order to make an assessment or determination of the same. The process of appraisal would certainly require application of mind independently and make evaluation of the available materials to make an approval to regulatory authority to grant EC or place before the regulatory authority with the report to refuse EC. The notification makes it mandatory not only a scrutiny but also a detailed scrutiny to the EAC or SLAEC of the application and other documents like final EIA report, outcome of the public consultation including public hearing proceedings submitted by the Project Proponent. The word 'scrutiny' should have been employed in the Notification by the Legislature with clear intention that a critical observation or examination of all the available materials before submitting a recommendation to the regulatory authority. The Notification requires a categorical recommendation from the EAC or SLEAC on conclusion of the proceedings of appraisal. Hence, the appraisal cannot be a mere formality or a simple ritual to pass on. The Hon'ble High Court, Delhi in Utkarsh Mandal Vs. Union of India (2009 X AD (Delhi) 365 has held as follows: "We, therefore, hold in the context of EIA Notification dated 14 September 2006 and the mandatory requirement of holding public hearings to invite

objections, it is the duty of the EAC, to whom the task of evaluating has been delegated, to indicate in its decision the fact that such objections, and the response thereto of the project proponent were considered and the reasons why any or all of such objections were accepted or negated. The failure to give such reasons would render the decision vulnerable to attack on the ground of being vitiated due to non application of mind to relevant consideration and therefore arbitrary. (Para 4)."

46) The Hon'ble Apex Court in Maharashtra State Board of Secondary and Higher Secondary Education Vs. K.S. Gandhi (1991) 2 SCC 716 has held as follows:

"21. Thus, it is settled law that the reasons are harbinger between the minds of the maker of the order to the controversy in question and the decision or conclusion arrived at. It also excludes the chances to reach arbitrary, whimsical or capricious decision or conclusion. The reasons assure an inbuilt support to the conclusion/decision reached. The order when it affects the right of a citizen or a person, irrespective of the fact, whether it is quasi judicial or administrative fair play requires recording of germane and relevant precise reasons. The recording of the reasons is also an assurance that the authority concerned consciously applied its mind to the facts on record. It also aid the appellate or revisional authority or the supervisory jurisdiction of the High Court under Article 226 or the appellate jurisdiction of this Court under Article 136 to see whether the authority concerned acted fairly and justly to mete out justice to the aggrieved person."

47) The NGT in Appeal No. 20/2013 in Rudresh Naik Vs. Goa State Coastal Zone Management Authority has held as follows: " It is settled rule that administrative authorities which are dealing with the rights of the parties and are passing orders which will have civil consequences, must record appropriate reasons in support of their decisions. Certainly, these decisions must not be like judgments of the courts, but they must provide insight into the thinking process of the authority as to for what reasons it accepted or rejected the requests of the applicant. (Para 12, 13 and 14)

51) After a careful consideration of the submissions made, the Tribunal is of the considered opinion that the contentions put forth by the appellants' side have got force from the judgment made by the High Court, Delhi in Utkarsh Mandal Samithi case which was to the effect that it is a mandatory requirement and also a duty of the EAC to whom the task of evaluation has been delegated to indicate its decision that the objections and concerns raised at the public hearing and the response of the Project Proponent thereon were considered and as to what reasons those objections and concerns were accepted or negated In the said decision, it has been unambiguously held that the failure to give such reasons and render the decision vulnerable to attack on the ground of being vitiated due to non application of mind to relevant consideration and therefore, arbitrary.

55) The EAC, is a High Level Committee entrusted with the task of evaluating the projects, which exercise it has to do with its wisdom, experience and expertise of the members. Needless to say, while doing that exercise for such evaluation, the Committee should keep wider interest of the nation as paramount in its mind. A duty is cast upon the EAC to strike a balance between the development on one side and ecology and environment on the other, thereby ensuring larger interest of the society of the State. While such vital and indispensable task is entrusted with the fervent hope and expectation, shirking of responsibility in a hasty or evasive manner would not only be against the objective of its constitution, but also defeats the purpose for which the Committee is functioning. Where a particular point is not decided unanimously, specific noting should be prepared and scientific reasons for

accepting the majority view should be recorded and maintained for future reference. It should not be forgotten by the EAC that either the acceptance or rejection of a proposal should be the result of a proper and purposeful exercise on the recommendations of which the regulatory authority can safely act and take a correct decision thereon.

58) We have had occasions to go through the minutes of EAC meetings with regard several developmental projects. Almost all of them are very generic in their structure and the recordings appear rather routine and stereotyped. Generally, an array of issues connected with a particular sector (eg., Thermal Power) are listed and a mention is made that these were "considered". Being a body that recommends the clearance or otherwise of a project from environmental angle, the EAC should record and maintain the details of technical discussion amongst its members. This procedure demonstrates transparency in decision making and helps framing not only sector specific, but also site-specific technical conditions, both during construction and operation phases of projects. In order to demonstrate threadbare nature of discussions while considering a project for giving its recommendation, it is essential that the views, opinions, comments and suggestions made by each and every member of the committee are recorded in a structured manifest/ format. Seldom do the minutes of EAC meetings make a specific mention about the viewing of videograph of the public hearing submitted for its consideration. The EAC is directed to take note of this and incorporate its view on the same in the minutes of the meeting, in future.

61) The EAC is directed to discuss the following items in detail, even if these have already been taken into consideration and add specific mandatory conditions as appropriate,

4. The EAC is directed to review its appraisal process with regard to issues raised in the public hearing and give attention to points missed by it, if any, during the earlier process of appraisal and stipulate additional conditions, if so warranted.

62) It is not as if the Tribunal is not unmindful of the fact that the proposed project is a thermal power plant estimated at a cost of approximately Rs.11,830 crore and if commissioned the State would be relieved of the acute shortage of power to some extent and also the fact that the process till the grant of EC for the project and pendency of the proceedings before the forum had consumed nearly 4 years. But, when it is noticed by the Tribunal that the EAC had not made proper exercise by applying its mind to make a proper evaluation and the same also remained unnoticed by the MoEF while granting the EC for the project in question, taking into account the larger interest of the nation from the point of view of ecology and environment, the Tribunal cannot give its nod either for the recommendations made by the EAC or for the grant of EC made by MoEF.

17. PCB Appointments Case: Relevant Extracts from the Judgement of the Hon'ble Supreme Court dt. 22nd Sep, 2017

CIVIL APPEAL NO. 1359 OF 2017

Techi Tagi Tara

...Appellant

versus

Rajendra Singh Bhandari & Ors.

...Respondents

Judgement¹⁵³ dt.. 22nd Sep, 2017

Bench: Jst. Madan B. Lokur and Jst. Deepak Gupta

1. This batch of appeals is directed against the judgment and order dated 24th August, 2016 passed by the National Green Tribunal, Principal Bench, New Delhi (for short 'the NGT') in Original Application No. 318 of 2013. On a reading of the judgment and order passed by the NGT, it is quite clear that the Tribunal was perturbed and anguished that some persons appointed to the State Pollution Control Boards (for short 'SPCBs') did not have, according to the NGT, the necessary expertise or qualifications to be members or chairpersons of such high powered and specialized statutory bodies and therefore did not deserve their appointment or nomination. While we fully commiserate with the NGT and share the pain and anguish, we are of the view that the Tribunal has, at law, exceeded its jurisdiction in directing the State Governments to reconsider the appointments and in laying down guidelines for appointment to the SPCBs, however well-meaning they might be. Therefore, we set aside the decision of the NGT, but note that a large number of disconcerting facts have been brought out in the judgment which need serious consideration by those in authority, particularly the State Governments that make appointments or nominations to the SPCBs. Such appointments should not be made casually or without due application of mind considering the duties, functions and responsibilities of the SPCBs.
2. Why is it important to be more than careful in making such appointments? There can be no doubt that the protection and preservation of the environment is extremely vital for all of us and unless this responsibility is taken very seriously, particularly by the State Governments and the SPCBs, we are inviting trouble that will have adverse consequences for future generations. Issues of sustainable development, public trust and intergenerational equity are not mere catch words, but are concepts of great importance in environmental jurisprudence. Perhaps appreciating and anticipating this, Article 48A was introduced in the Constitution and this Article reads as follows:

Protection and improvement of environment and safeguarding of forests and wild life - The State shall endeavour to protect and improve the environment and to safeguard the forests and wild life of the country." Similarly Article 51A (g) of the Constitution indicates the fundamental duties of every citizen of the country, one of them being to protect and improve the natural environment including forests, lakes, rivers and wild life, and to have compassion for living creatures. It is quite clear that apart from the natural law obligation to protect and preserve the environment, there is also a constitutional obligation to do so. Unfortunately, despite this, our society has been witnessing

¹⁵³ http://www.sci.gov.in/supremecourt/2016/35789/35789_2016_Judgement_22-Sep-2017.pdf

over the last few decades, to repeated onslaughts against the environment, sometimes in the name of development and sometimes because our society just does not seem to care. In this context we may also mention Article 21 of the Constitution which has been given a very wide amplitude by several decisions of this Court, including on issues concerning the environment. The judgment of the NGT draws attention to some of these aspects but essentially points to the 'who-cares' attitude adopted by several State Governments. It is this attitude that compelled a public spirited environmentally conscious individual to challenge the composition of the SPCB in the State of Uttarakhand and consequently the necessity of being extra careful in making appointments to the SPCB.

3. One of the principal attributes of good governance is the establishment of viable institutions comprising professionally competent persons and the strengthening of such institutions so that the duties and responsibilities conferred on them are performed with dedication and sincerity in public interest. This is applicable not only to administrative bodies but more so to statutory authorities – more so, because statutory authorities are the creation of a law made by a competent legislature, representing the will of the people.
14. Keeping all these facts and the recalcitrance of the State Governments in mind, the NGT examined the expertise and qualifications of members of the SPCB of almost all States and *prima facie* found that about ten States and one Union Territory had members in the SPCB who lacked the qualifications suggested by the Central Government.
15. At this stage, it must be mentioned that apart from the Central Government, there are several authorities that have applied their mind to the issue of appointment of members of the SPCBs. These include Expert Committees such as the Bhattacharya Committee of 1984, the Belliappa Committee of 1990, the Administrative Staff College of India Study of 1994 and a Committee chaired by Prof. M.G.K. Menon. Notwithstanding this, the response of the State Governments in appointing professionals and experts to the SPCBs has been remarkably casual. It is this *chalta hai* attitude that led the NGT to direct the State Governments to consider examining the appointment of the Chairperson and members in the SPCBs and determining whether their appointment deserves continuation or cancellation. Thereafter the NGT gave several guidelines that ought to be followed in making appointments to the SPCBs.
25. In *Ashok Kumar Yadav v. State of Haryana*, this Court observed that competent, honest, independent persons of outstanding ability and high reputation who command the confidence of people and who would not allow themselves to be deflected by any extraneous consideration from discharging their duties should be appointed to Public Service Commissions. Similarly, in *In R/o Dr Ram Ashray Yadav I I* it was held that the credibility of an institution is founded upon the faith of the common man in its proper functioning. The faith would be eroded and confidence destroyed if it appears that the officials act subjectively and not objectively or that their actions are suspect. In our opinion, these conclusions of this Court would equally apply to professional and expert statutory bodies such as the Central Pollution Control Board and the State Pollution Control Boards.
26. Additionally, various committees have given sufficient guidelines for the appointment of the Chairperson and members of the SPCBs. The Bhattacharya Committee (1984) proposed that the structural organization of SPCBs should consist of technical services, scientific services, planning, legal services, administrative services, accounts, training cell and research and development. The Committee, *inter-alia*, called for (a) discouraging the flow of deputationists to the Boards, (b) upgrading regional laboratories, (c) providing each Board with at least one mobile laboratory, (d)

creating a centralized training institute, (e) providing, on priority, funds to establish air control activity, and (f) bestowing the power to make posts at least up to the rank of environmental engineers/scientists with the Boards.

27. Similarly, the Belliappa Committee (1990) recommended (a) introducing elaborate monitoring, reporting and organizational systems at the national level along with four regional centres and one training cell in each Board, (b) effecting suitable changes in the Boards recruitment policy to enable them induct persons with suitable academic qualifications, and (c) ensuring that the Chairman and Member-Secretary are appointed for a minimum of three years.
28. The Administrative Staff College of India (1994) recommended, *inter alia*, that (a) the SPCBs be reoriented for implementing the instrument mix of legislation and regulation, fiscal incentives, voluntary agreements, information campaigns and educational programmes (b) an Annual Environmental Quality Report be prepared by every SPCB for the concerned State, (c) an inventory of discharges and effluents disaggregated to the district level be prepared, (d) a research cell be formed in each SPCB and a network be established with the proposed clean technology centre and (f) model environmental impact assessments be prepared for major categories of industries.
29. Finally, the Menon Committee made recommendations that are a part of the communication of 16th August, 2005 referred to above. It was also recommended that (a) in general, State Governments should not interfere with recruitment policies of the SPCBs, especially where the Boards are making efforts to equip their institutions with more and better trained engineering and scientific staff, (b) the statutory independence and functional autonomy given to the SPCBs should be protected and the Boards should be kept free from political interference. The Boards should be enabled to make independent decisions in this regard and (c) the Chairperson of the SPCB should be a full-time appointee for a period of five years and the Member-Secretary of the SPCB should also be appointed for a period of five years.
30. All these suggestions and recommendations are more than enough for making expert and professional appointments to the SPCBs being geared towards establishing a professional body with multifarious tasks intended to preserve and protect the environment and consisting of experts. Any contrary view or compromise in the appointments would render the exercise undertaken by all these committees completely irrelevant and redundant. Surely, it cannot be said that the committees were not constituted for the purpose of putting their recommendations in the dustbin.
31. Unfortunately, notwithstanding all these suggestions, recommendations and guidelines the SPCBs continue to be manned by persons who do not necessarily have the necessary expertise or professional experience to address the issues for which the SPCBs were established by law. The Tata Institute of Social Sciences in a Report published quite recently in 2013 titled “Environmental Regulatory Authorities in India: An Assessment of State Pollution Control Boards” had this to say about some of the appointments to the SPCBs:

“An analysis of data collected from State Pollution Control Boards, however, gives a contrasting picture. It has been observed that time and again across state governments have not been able to choose a qualified, impartial, and politically neutral person of high standing to this crucial regulatory post. The recent appointments of chairpersons of various State Pollution Control Boards like Karnataka (A a senior BJP leader), Himachal Pradesh (B a Congress party leader and former MLA), Uttar Pradesh (C appointed on the recommendation of SP leader X), Arunachal Pradesh (D a sitting NCP party MLA),

Manipur Pollution Control Board (E a sitting MLA), Maharashtra Pollution Control Board (F a former bureaucrat) are in blatant violation of the apex court guidelines. The apex court has recommended that the appointees should be qualified in the field of environment or should have special knowledge of the subject. It is unfortunate that in a democratic set up, key enterprises and boards are headed by bureaucrats for over a decade.

In this connection, it is very important for State Governments to understand that filling a key regulatory post with the primary intention to reward an ex-official through his or her appointment upon retirement, to a position for which he or she may not possess the essential overall qualifications, does not do justice to the people of their own states and also staffs working in the State Pollution Control Boards. The primary lacuna with this kind of appointment was that it did not evoke any trust in the people that decisions taken by an ex-official of the State or a former political leader, appointed to this regulatory post through what appeared to be a totally non-transparent unilateral decision. Many senior environmental scientists and other officers of various State Pollution Control Boards have expressed their concern for appointing bureaucrats and political leader as Chairpersons who they feel not able to create a favourable atmosphere and an effective work culture in the functioning of the board. It has also been argued by various environmental groups that if the government is unable to find a competent person, then it should advertise the post, as has been done recently by states like Odisha. However, State Governments have been defending their decision to appoint bureaucrats to the post of Chairperson as they believe that the vast experience of IAS officers in handling responsibilities would be easy. Another major challenge has been appointing people without having any knowledge in this field. For example, the appointment of G with maximum qualification of Class X as Chairperson of State Pollution Control Board of Sikkim was clear violation of Water Pollution and Prevention Act, 1974”

32. The concern really is not one of a lack of professional expertise – there is plenty of it available in the country – but the lack of dedication and willingness to take advantage of the resources available and instead benefit someone close to the powers that be. With this couldn't-care-less attitude, the environment and public trust are the immediate casualties. It is unlikely that with such an attitude, any substantive effort can be made to tackle the issues of environment degradation and issues of pollution. Since the NGT was faced with this situation, we can appreciate its frustration at the scant regard for the law by some State Governments, but it is still necessary in such situations to exercise restraint as cautioned in *State of U.P. v. Jeet S. Bisht*.
33. Keeping the above in mind, we are of the view that it would be appropriate, while setting aside the judgment and order of the NGT, to direct the Executive in all the States to frame appropriate guidelines or recruitment rules within six months, considering the institutional requirements of the SPCBs and the law laid down by statute, by this Court and as per the reports of various committees and authorities and ensure that suitable professionals and experts are appointed to the SPCBs. Any damage to the environment could be permanent and irreversible or at least long-lasting. Unless corrective measures are taken at the earliest, the State Governments should not be surprised if petitions are filed against the State for the issuance of a writ of *quo warranto* in respect of the appointment of the Chairperson and members of the SPCBs. We make it clear that it is left open to public spirited individuals to move the appropriate High Court for the issuance of a writ of *quo warranto* if any person who does not meet the statutory or constitutional requirements is appointed as a Chairperson or a member of any SPCB or is presently continuing as such.

18. Eleven Years of the Environment Impact Assessment Notification, 1994; How Effective Has It Been?

Kanchi Kohli and Manju Menon (2005, Kalpvriksh)

RECOMMENDATIONS¹⁵⁴

Environment Impact Assessment (EIA) can prove to be a very progressive tool in development planning. However, this can only happen if reports are honest in the representation of facts and are based on as full an understanding of the impacts of a proposed project as the current level of knowledge offers. Unfortunately, most EIAs that are conducted today do not consider rejection of the project on environmental or social grounds as an option. In instances where the EIAs have concluded that a project is to be rejected, subsequent interventions have succeeded in 'modifying' these conclusions.

As has been discussed in the previous sections of this document, the manner by which EIAs are carried out is dismal and disappointing. The information they contain is often incomplete, false or inadequate; when the information is good, the conclusions drawn are inconsistent with it, resulting in a biased outcome. The series of dilutions to the EIA notification over the last eleven years has largely weakened its scope, both in letter and in spirit. There are some positive amendments like the availability of the EIA report prior to a public hearing, but these are few and far between. Also, as pointed out repeatedly by environmentalists, there is little point in dynamic and positive changes in the EIA notification when more and more activities are gradually being excluded or removed from its purview.

There are several inadequacies plaguing the content and implementation of the EIA notification. Some of these are as follows

- There is an exclusion of many kinds and sizes (determined by investment limits) of development/industrial projects and activities from the list of projects requiring EIAs, many of which have a significant potential for negative environmental impacts;
- There is no stated requirement of an assessment of the combined or cumulative impacts of projects related to a principle project (e.g. a series of dams in the same river basin) in the notification;
- The EIA notification is not applied to assessment of policies and sector-wise programmes¹⁵⁵. In fact, environmental and social impact assessment of these are not undertaken;
- EIAs are funded by project proponents rather than by an independent agency, which considerably increases the chances of a biased and subjective EIA report

¹⁵⁴ This section is based on the ongoing work of several non-governmental organisations and community groups to understand and effectively use available legal spaces for peoples' participation in decision-making processes of developmental projects. The authors would particularly like to acknowledge the recommendations presented in the Final Technical Report of the National Biodiversity Strategy and Action Plan, India, November 2003, and a paper titled Public Involvement in Environmental Decision Making by Leo Saldanha, Environment Support Group, August 2002.

¹⁵⁵ National Environmental Engineering Research Institute (NEERI) has produced a 'National Guidance Manual on EIA Practice with Support Manuals on Select Developmental Projects for Enhancing the Quality and Effectiveness of Indian EIAs under a World Bank project implemented through the MoEF.

- There is very little scope for the participation of affected people in the environmental assessment and overall clearance process, especially at the stage of final decision-making on the project. Though public hearings provide a limited space for participation at the assessment stage, they are hindered by:
 - the lack of will to encourage participation;
 - poor and incorrect implementation;
 - the absence of clear post-hearing clauses in the notification due to which groups that participated at public hearings are not kept informed about the follow up, the final decision and the basis on which the final decision has been made.
 - There is a serious lack of adequate and relevant expertise and human power amongst concerned authorities, including the expert committees of the MoEF.
 - The penal clauses of the notification have never been implemented by the MoEF. This encourages several incorrect and unethical practices by project proponents and EIA consultants, such as presenting fraudulent and fudged reports.
 - Redressal mechanisms available to the public are weak and inadequate (e.g. mechanisms to raise problems with implementation of the notification and bring these to the notice of the concerned authorities). The only specific forum for redressal is the NEAA, which has several limitations.

Undoubtedly, these and many more inadequacies in the environmental clearance process need to be dealt with. Citizens' groups and NGOs have repeatedly pointed these out, but there is little evidence of these suggestions being taken on board by the MoEF.

RECOMMENDATIONS

6.1 General:

Independent EIA Authority: Civil society groups have suggested the need for an independent Environment Impact Assessment Authority headed by a judicial officer and comprising of representatives from communities, peoples' groups, scientists, sociologists and environmentalists. Such a body would be independent of the Ministry of Environment and Forests. The decisions of this authority would be binding on the MoEF.

Sector Wide EIAs Needed: There is a need to conduct policy-level and sector-wide EIAs in the form of Strategic Impact Assessments (for various sectors including mining, power and so on). This is critical to judge the impacts of macro-economic, developmental, and other policies, schemes, and programmes.

Conduct Options Assessment: EIAs should follow only after an Options Assessment and a Least Cost Plan for a project is done by the state or central government. For this the following steps are of relevance for both public and private sector projects:

- In the case of projects proposed by PSUs and the state/central governments, the Options Assessment preceding the EIA should provide information on the best strategies to meet the needs of the region, be it power, irrigation, employment, or some other stated benefit.
- In case of private sector projects, the project proponent's project justification statement should be accompanied by a mandatory Project Justification Report prepared by the State or Central

Government. This Project Justification Report would provide information assessing the need for the project and the benefits accruing from it for the state/nation and the people of the area.

- The Options Assessment or Project Justification Report should also state how the proposed project fits into the existing developmental plans of the state or the region.
- The information should be included in a computation of environmental and social costs, apart from other project costs such as technical and financial costs. Based on this, a set of options should be put forth from which the least expensive and least damaging option is selected.
- The EIA for the project should follow only after this option is decided.

Creation of an Information Desk: An information dissemination desk may be assigned within the MoEF which anyone can write to regarding the status of clearance of projects. This desk should be mandated to respond within a maximum of ten days by post/courier and a maximum of two days by email, to the contact information that has been furnished by the person seeking the information. Since all meetings and discussions are documented as electronic data, the officer should furnish this information regarding the status of clearance, with a record of the discussions in the Expert Committee on the project.

Environmental Risk Assessment: New approaches such as Environmental Risk Assessment which enable more flexible and dynamic assessments of direct and indirect ecological impacts must be explored. As part of this process, recognised Safety and Environmental Auditors must compulsorily meet local populations and submit a detailed report of potential risks due to the project.

Issue a Complete Notification: The MoEF must issue and maintain on its website at all times, a consolidated notification incorporating all the amendments till date. As of now what is available on the MoEF website is the notification updated upto 13th June 2002 and copies of subsequent amendments, which are not incorporated within the main text of the notification. In the absence of this critical document, it is difficult for implementing agencies and stakeholders in general to understand the position of the law.

6.2 Applicability of the EIA Notification:

Key Concerns

As it stands today, there are several projects with significant environmental impacts that are exempt from the notification either because they are not listed in Schedule I, or their investments are less than what is provided for in the notification. Importantly, several projects located in zones covered by other notifications such as the CRZ Notification are exempt from the provisions of the EIA Notification. For example, proposed minor ports located in the CRZ areas like Tadri (Karnataka) do not need to undergo the procedures mandated by the EIA Notification. Other projects such as defence-related road construction and railway projects are explicitly exempt from the EIA notification altogether.

Following is a set of recommendations towards ensuring applicability of the environmental clearance process to all categories of projects:

- The provisions of the EIA notification, including public hearings should be applicable to all hitherto exempt categories of projects (including large scale agriculture/ monoculture plantation projects) which have environmental impacts.

- As an immediate measure, it needs to be ensured that all those projects where there is likely to be a significant alteration of ecosystems like rivers, lakes, wetlands, forests, grasslands, coastal and marine ecosystems, need to go through the process of environmental clearance, without exception. This should apply if they are likely to reduce the biodiversity of the region (both wild and cultivated); if they are likely to affect regions that have not been studied adequately for flora, fauna, or socially/culturally fragile human communities, or if they are likely to displace people or disrupt livelihoods, temporarily or permanently.
- No industrial or large-scale ‘developmental’ activity should be permitted in ecologically sensitive areas. Only developmental activities/processes, which do not alter the basic ecological characteristics of such an area or do not cause destruction of the fragile ecosystems, should be allowed. Separate and specific notifications issued for each of these areas clearly listing out the range and kinds of activities permitted, prohibited and restricted in identified areas would help in effective implementation of this clause.

6.3: Quality of EIA Reports: Preparation and Content:

Key Concerns

One of the biggest concerns with the environmental clearance process is related to the quality of EIAs that are being carried out. As presented in the Table on Violations of the EIA Notification, one of the clear violations has been with reference to inadequate, incomplete, and false data in the EIA reports. This includes presenting fraudulent data and the concealment of facts. EIA reports ignore several aspects while carrying out assessments and significant information is very often omitted. Many EIAs are based on single season data and are not adequate to determine whether environmental clearance should be granted. All this makes the entire exercise contrary to its very intent. These aspects require immediate attention and reform.

As things stand today, it is the responsibility of the project proponent to commission the preparation of the EIA for its project. As a result, the EIA is actually funded by an agency or individual whose primary interest is to procure clearance for the project proposed. There is little chance that the final assessment presented is unbiased; even if the consultant may provide an unbiased assessment that is critical of the proposed project, as the project proponent could force changes that work positively for the project. Examples where this has taken place are in the EIA process for Teesta Low Dam III (W. Bengal), Lower Subansiri (Assam-Arunachal Pradesh) hydel projects.

Some recommendations to address the problems regarding the quality of EIA reports are:

Shift the focus to conservation: The focus of EIAs needs to shift from utilization and exploitation of natural resources to conservation of natural resources. Many EIA reports tend to justify the need for the project, shifting the focus of the EIA from a process that provides insights into the viability and desirability of the project, to one that finds justification for the project and on rare occasions one that offers simplistic solutions on minimizing impacts of projects already declared ‘important’.

Strongly Integrate Biodiversity into the Assessment process: At present EIA reports are extremely weak when it comes to assessment of biological diversity of a project area and the consequent impacts on it. This is particularly so when it comes to domesticated (both livestock and agriculture) biodiversity, aquatic biodiversity other than commercial fish, ‘lesser’ or non-endangered plants and animals (i.e. those other than mega fauna like tigers and elephants or charismatic plants like orchid species), ecosystem benefits and services (including supporting livelihood needs of communities, essential hydrological functions, soil

conservation etc), and flora-fauna inter-relationships. This gap needs to be plugged through specific guidelines and, if necessary, through amendments to the EIA notification.

Elaborate the ‘Checklist for Ecological Impact Assessment’, in the MoEF’s EIA Manual: This checklist needs to include impacts on agricultural biodiversity, biodiversity-related traditional knowledge, and livelihoods. Further, cumulative impacts of projects that are technically linked or located in the same ecological region, and impacts of the eventual closure of the project or components of the project should also be incorporated into the checklist. Finally the list should contain details on a full exploration of alternatives, especially decentralised alternatives, to mega-projects. The checklist also needs to cover various kinds of impacts resulting from a particular activity. For instance, EIAs for deep-sea mining only study how deep-water nutrients are affected by an activity and no other components of marine biodiversity.

Understand Cumulative Impacts: Comprehensive EIAs need to be undertaken for industries and operations working in clusters such as in zones identified for chemical industries or export oriented units. For instance, the present EIA notification states that assessments do not need to be conducted for mining activities up to 5 hectares, and do not need to hold public hearings for mining up to 25 hectares. However, it is recognized that many mining activities take place in clusters (several leases for small mining projects allowed in close proximity to each other in one geographical area) and that EIAs need to assess their cumulative impacts on the environment and biodiversity.

Adverse Impacts to be Spelt Out: All EIA reports should clearly state what are the adverse impacts that a proposed project will have. This should be a separate chapter and not hidden within the technical details. Based on this, the Environment Management Plan (EMP) should include a specific set of measures, which are identified to mitigate these impacts, with costs and time frame included. This requirement should be built into the EIA notification and be legally enforceable.

Make Methodology Clear and Transparent: EIAs should contain details of the assessment process as annexures such as:

- Full information regarding all the parties involved in assessments, including sub-consultants so that there is no scope for anonymity and parties can be held accountable for their findings and recommendations.
- The Terms of Reference of every group/individual involved in any aspect of the assessment process.
- Full references for all information sourced from secondary sources so that they can be independently verified by anyone interested in doing so.
- Details of the time spent and activities carried out in the field for the assessments such as names of villages, names of interviewees, number of days spent in each area.
- Details of expenses incurred for various activities for preparing the EIA report, including who was paid and for what activities.

Make all EIA-related Reports Public: The sub-components or subsidiary reports of EIA reports (e.g. Assessment of Biodiversity Impacts done by a sub-consultant¹⁵⁶) should be made publicly accessible as

¹⁵⁶ Very often an EIA consultant further sub-contracts specific portions of an EIA report to agencies. For instance, the Geological Survey of India or National Institute of Oceanography might be requested to carry out one part of the assessment based on their expertise. These are compiled by the EIA consultant into the EIA report, and accordingly conclusions are drawn. This results in distortions and omissions in the suggestions and conclusions of the experts or sub-consultants; observations regarding high risks or conclusions seeking rejection of the project may not appear in the final EIA report.

stand-alone reports along with the EIA. To begin with, these should be available on the websites of the MoEF and the project proponent (where a website exists). This is important to maintain the integrity of the information as well as for agencies doing EIAs to gain and retain the trust of people. Agencies such as the Bombay Natural History Society have maintained this policy for EIAs/ sub-components of EIAs done by them.

Discourage rapid EIAs: EIAs should be based on full studies carried out over at least one year. Single season data on environmental parameters like biodiversity, as is being done for several ‘rapid’ assessments, is not adequate to gain an understanding of the full impact of the proposed project.

Provide Full Autonomy in the Preparation of EIA Reports: It is critical that the preparation of an EIA is completely independent of the project proponent. One option for this could be the creation of a central fund for EIAs, which contains fees deposited by project proponents while seeking that an EIA be done for their proposed project. The Central EIA Fund can also support the cost of organizing public hearings. This is also important because one of the reasons behind the provision for public hearings being removed for certain categories of projects was the financial load on small investors.

Prepare a Preferred and Blacklisted Roster of EIA Consultants: State and central governments should maintain a list of credible, independent, and competent agencies that can carry out EIAs. Conversely, EIA consultants who have been engaged in preparing plagiarised and false reports, or whose work has been found to be repeatedly substandard, need to be blacklisted and not allowed to undertake EIAs. Such lists can be maintained by the Ministry of Environment and Forests with citizens’ groups providing information available to them.

6.4 Public Hearings:

Key Concerns

Discussions in the previous chapters have pointed out several lacunae in the way public hearings are being conducted all across the country. A number of projects with significant environmental or social impacts have been excluded from the mandatory public hearing process. There are also concerns on how much value is given to opinions expressed during the public hearing. In many cases minutes of public hearings or recommendations of the public hearing panel do not reflect the actual proceedings and objections raised. Further, the recommendations of the public hearing panel are only advisory and it is not mandatory for the Impact Assessment Agency to even consider these while granting environmental clearance to projects.

Keeping the range of issues related to public hearings in mind, it is important to accept the following:

Public Hearings for all Projects: Ensure that public hearings are held for all projects which are likely to have environmental and/or social impacts. No project is to be considered by MoEF for environmental clearance if the public hearing has not been carried out as per clearly laid out guidelines.

Scope of Public Hearings to be Widened: As an immediate measure the scope of the public hearings needs to be widened to at least those projects which require forest clearance under the Forest Conservation Act, 1980, but are not listed in Schedule I of the EIA notification (e.g. railway projects).

More than one public hearing: Public hearings need to be conducted in at least three phases/ stages.

- The **preliminary hearing** may be required to explain the process of conducting the assessment so that the scope of the assessment is decided with the participation of the public. This could be done with the help of local NGOs in the area. Independent funds need to be allocated for the same.
- The **second hearing** can be with a purpose of presenting and discussing all aspects of the assessment's findings, with the help of booklets/presentations in local languages. Some of these aspects can include environmental impacts; costs and benefits of the project (including environmental and social costs); whether alternatives have been considered; displacement and rehabilitation aspects and so on.
- The **third hearing** can be held after a week but no later than a month following the second meeting, this period being intended to give people a chance to analyze the information and points they have heard at the earlier hearing. This can be primarily to record the views and objections of the people.

Democracy and Transparency in the Conduct of Public Hearings: It needs to be ensured that full information related to the EIA is provided to all concerned citizens. For this it is critical to provide translations of the EIA and relevant documents in the local language(s), to conduct the hearing in the local language(s) and to proactively advertise the public hearing to as many people as possible. For instance, gram panchayat offices can be used to display notices of the public hearing, rather than using only newspapers as is the practice now. Hearings should also be conducted at a time and venue convenient for project affected people¹⁵⁷.

Critical Place for the Public Hearing Process: It must be ensured that the views expressed in public hearings, especially from affected populations, are given a more central place in environmental decision-making. Some ways by which this could be done are:

- Recording all viewpoints and presenting them to the expert committees and MoEF. This can be done by appointing independent rapporteurs.
- A video recording of the proceedings could be made mandatory. These aspects also need to be formally built into Schedule IV of the EIA notification.

Accountability within the Public Hearing Process: Accountability needs to be built into the public hearing procedure. This is with reference to the conduct of the hearing as well as access to information after the hearing. For instance;

- The minutes of the public hearing should be compulsorily available at designated places to be specified in Schedule I of the EIA notification.
- The project proponent should be asked to explain during and after the hearing as to how they propose to deal with the concerns raised at the public hearing.

Composition of the Public Hearing Panel: Ensure that the three representatives of the local communities on the panel are those who have demonstrated commitment towards social and environmental concerns. It needs to be specified that none of these people are from political parties or are directly/ indirectly linked with the project proponent.

¹⁵⁷ There are many significant suggestions related to the conduct and procedure of public hearings that have been specified in the Gujarat High Court Order of March 2000, in Special Leave Application No.8529 of 1999 (See Section on Institutions for Redressal of Environmental Clearance).

Direct Access to Expert Committees to be facilitated: The local communities, NGOs and civil society groups must be allowed a chance to place their opinions and concerns directly to the Expert Committee and the MoEF. Although this is partly possible since anyone is allowed to write to the MoEF after the public hearing is announced, an opportunity to make a presentation before the MoEF and the Expert Committee should be given to these constituencies just as it is given to project proponents and consultants. This would also help the MoEF and Expert Committees to understand the concerns directly from these parties rather than indirectly from the minutes of a public hearing or from a letter. This could also ensure that their concerns and opinions are better incorporated into the decision-making process.

Guidelines for Public Hearings: MoEF should incorporate the above points and any others, into a set of Guidelines on Conducting Public Hearings, to be issued to all state governments, district collectors, and other relevant agencies. A number of suggestions on Public Hearings and their conduct already exist, one of them being the March 2000 order of the Gujarat High Court in Special Leave Application No.8529 OF 1999 (See Section on Institutions for Redressal of Environmental Clearance). Such documents can form the basis of the guidelines. A draft of the guidelines must be opened for public comments before being finalized.

6.5: Grant of Clearance:

Key Concerns

There are several concerns with reference to the granting of environmental clearance of projects.

Firstly, for projects that require site clearance it is often assumed by project proponents that once site clearance is granted, environmental clearance will follow. As a result, many project proponents begin construction of the project components (like housing colonies, roads), even before the environmental clearance is granted. This is despite the fact that it has been specified in the EIA notification that this should not be done. At another level, when environmental clearance is granted despite public objection/rejection, the reasons for the same are not conveyed to all those who have sent in written objections and/or attended the public hearing.

There are very few ways to get information regarding project clearances. For those with access to the internet, the MoEF website seems to be of some help. However, very often the information on the website is updated much after the decision is taken. For citizens and communities who do not have access to the Internet, this information is not available. The availability of this information immediately after a decision on the clearance is taken is of crucial importance, in case it needs to be challenged before the National Environment Appellate Authority.

The following measures are needed to address the above concerns:

Clarification on Site Clearance: The notification needs to make it clear that the provision for 'site clearance' does not imply any commitment on the part of the Impact Assessment Agency to grant full environmental clearance. The following can be added in clause 2 II: 'grant of site clearance only allows for conducting investigation and survey for preparation of pre-feasibility report and would not ipso facto imply any commitment on the part of the Impact Assessment Agency to grant environmental clearance.'

Prior Informed Consent Mandatory: The prior informed consent of local communities and urban wards or residents' associations needs to be made mandatory before the grant of environmental clearance. The consent should be from the full general body, not only from the sarpanch/ pramukh /head.

Disclosure of Reasons for Clearance: The reasons for the grant of clearance despite objections or rejection of a project need to be communicated to the project-affected communities. This can be done by written communication in the same places designated in Schedule IV where project related documents are to be made available prior to the public hearing. In addition, a public meeting can be organized with the purpose of sharing the reasons behind the grant of clearance of a project. This needs to be done, within two months of the grant of clearance¹⁵⁸. A document outlining the reasons for clearance in detail should also be posted on the MoEF's website.

Access to Expert Committee discussions: Minutes of the expert committees' meetings and other related documents indicating the rationale for grant of clearance must be made available on request to civil society, at the concerned district headquarters and at the concerned sub-divisional headquarters (also see to section 6.6 on Expert Committees below).

Specificity in Clearance Conditions: Language used for specifying conditions of clearance must be clear and specific. Often the language used in clearance conditions is ambiguous and subject to convenient interpretation. For instance terms such as 'strict compliance', 'regular monitoring', 'sufficient funds', 'appropriate measures', allow for subjective implementation. Therefore, it is critical that conditions are much more clear in their statement and as specific and exhaustive as possible.

6.6: Composition of Expert Committees:

Key Concerns

Although the EIA notification provides for a fairly balanced composition of the Expert Committees (Schedule III of the notification), the current composition does not fulfil those criteria. Yet clearances of projects are being recommended by these committees. The following need to be undertaken to ensure that the committees can take appropriate decisions on the clearance of projects. The section on Practice and Implementation of the EIA Notification in this report discusses these concerns in detail.

Some recommendations to address the key concerns are as follows:

Dissolve Existing Committees: The present Expert Committees need to be dissolved and reconstituted with experts and experienced people from various stakeholder groups, who are reputed in environmental and other relevant fields.

Process of Selection: Make the process of selection of these committees open and transparent, making public the expertise/experience of all nominated members.

Access to Minutes and Discussions of the Expert Committee Meetings: Make the minutes of all committee meetings, decisions and advice provided by these committees open to public scrutiny, to show that they are taken on the basis of sound science, adequate information, and the criteria of ecological sustainability and social justice, and to make committee members accountable for the recommendations they give to the MoEF (Also see to section 6.5 on Grant of Clearance above).

¹⁵⁸ It needs to be kept in mind that the NEAA Act gives a period of 30 days to challenge environmental clearance of a project. The period is extendable to 90 days with justified reasons.

6.7 Monitoring, Compliance and Institutional Arrangements:

Key Concerns

Projects are granted clearances based on certain conditions, which the project authorities need to comply with. These are both related to the construction phase and post construction phase of a project. For instance, conditions may be imposed on muck disposal or affluent discharge to be confined to certain areas and within specified limits. The regional offices of the MoEF are to monitor the compliance of these conditions and prepare reports.

However, the local population does not even know of these conditions and are not a part of its monitoring. It is not known if project authorities reflect the true status of compliance in their reports to the MoEF. Access to these compliance reports is only 'subject to public interest'. The lack of access to compliance reports has severe repercussions on the rights of people who were opposed to the project and for whose benefit some conditions may have been laid out for the project to follow.

In a few cases where it has come to the notice of citizens or community groups that the clearance conditions are being flouted by project authorities, it has also become obvious that monitoring mechanisms of the MoEF are inadequate and that the penal action for non-compliance is not adequate for forcing compliance in future projects.

Some recommendations to address these concerns are:

Automatic Withdrawal of Clearance on Non-compliance: The EIA notification needs to build within it an automatic withdrawal of clearance if the conditions of clearance are being violated, and introduce more stringent punishment for non-compliance. At present the EIA notification limits itself to the stage when environmental clearance is granted. There is a need to extend the scope beyond that stage as the record on compliance of environmental clearance conditions is extremely dismal (See Section on Practice and Implementation of the EIA Notification).

Jurisdiction of Regional Offices: The MoEF should set up more regional offices, each with smaller areas of jurisdiction, to effectively monitor the compliance of clearance conditions. At present the area under the jurisdiction is very large, comprising several hundred ongoing projects and the MoEF regional offices are unable to cope with it.

Expert Committees in Regional Offices: It would be useful to have advisory Expert Committees at the MoEF regional offices, comprising of ecologists, sociologists, local community members, government officials, and representatives of local institutions, to help with the clearance of projects at the regional level and monitoring of compliance of conditions.

Compliance and Monitoring Reports to be made available: The annual compliance reports of the MoEF regional offices must also be made available to people at the sub-divisional, district, state, regional and national levels. All the compliance and monitoring reports of the MoEF should be uploaded on the MoEF website, to allow public access to them.

Active Role of State Departments: In central projects where forest clearances are also involved along with environmental clearance, a robust monitoring mechanism that includes state departments needs to be established. Such a monitoring body should be given powers to address compliance of both sets of clearance conditions together and to take punitive action against the project proponent in case of non compliance of any of the conditions.

People's Participation in compliance of conditions: Local communities should be brought into the formal monitoring and reporting process of the compliance of conditions presently done by the regional offices of the MoEF. This would help the regional office as well since the geographical areas and number of projects that come under each office is vast which affects the efficiency and regularity of the monitoring process. Involving the communities will also bring in an element of transparency into the compliance, which it lacks completely as of now.

6.8: Redressal:

Key Concerns

The present redressal mechanism meant exclusively for challenging environmental clearance is extremely weak and limited in its scope. The National Environment Appellate Authority has heard only 15 cases in the last eight years. The process of seeking redressal from courts requires a fair amount of energy and financial allocation. It is not possible for all those with grievances to take on legal battles against large and powerful project proponents.

The limitations could be dealt with in the following manner:

Expand the Scope of the Appellate Authority: The scope of the National Environment Appellate Authority (NEAA) needs to be expanded to deal with more than just challenging environmental clearance of projects. Citizens should be able to access the Authority for redressal of all violations of the EIA notification as well as issues relating to non-compliance of conditions. As of now there is no forum other than the MoEF or the formal courts to seek redressal for non-compliance of clearance conditions.

No rejection on minor delays: Cases must be heard at least once on substantive grounds, rather than being dismissed at the first hearing simply on procedural grounds such as delay in filing an application (as is currently the practice under the NEAA Act). This is necessary as there are communities and citizens' groups in remote areas who would need to bring their cases before the NEAA. Information on clearance reaches them very late. Besides, the MoEF itself is not in a position to update its website immediately after clearing a project, which is the only communication link maintained in this regard by them.

Changes in the composition of the NEAA: The composition of the NEAA needs to be changed to include more NGO and civil society representatives as well as professionals from the field of environment. It may thus be necessary to increase the number of representatives that is presently allowed for the Authority. The duration of the authority can be three years, after which it can be reconstituted. However, during this period it should be ensured that the position of the members of the authorities must not be left vacant for long periods. E.g. the position of Chairperson of the NEAA continues to be vacant till date. It also needs to be ensured that Authority does not constitute an MoEF official who has very recently retired, as some of his or her own decisions might come to be challenged before the NEAA.

Provision for Special Invitees: The NEAA hearings should also have a provision for special invitees who can give insights into specific cases. The Central Empowered Committee (constituted by the Supreme Court) has been effectively practicing this for some of its hearings.

6.9. Capacity Building

Key Concerns

There is an urgent need to build capacities of government agencies, communities, NGOs and the judiciary with regard to the implementation of the existing EIA notification. Even in the instances where the provisions allow for people's participation or monitoring, the lack of information and capacity are great hindrances in implementation. For instance, the Public Hearing Panel often has no clue on the scope of their role in the environmental clearance process. If one takes the case of the judiciary, which is involved in redressal, it is comprised of judges who may not be clued into the environmental issues and their interface with laws. No matter how good the provisions of the law are, their implementation hinges on the capacities of officials who are meant to do it.

Some steps towards addressing capacities of implementers are as follows:

Build the Capacity of Pollution Control Boards: As of now the state Pollution Control Boards (PCBs) need to organize and facilitate the public hearing process. However in several states, the PCBs are not aware of their role and responsibility resulting in problems with implementation. State government departments could also use the learning from the experiences of the central level environment clearance process. The positive elements of public participation and access to information could be incorporated into state clearance processes too.

Enhance capacities of Civil Society and Local Communities: NGOs, civil society groups and local communities need to build their capacities to use the EIA notification towards better decision-making on projects that can impact their local environments and livelihoods. Capacities can be built to proactively and effectively use the notification rather than respond in a manner that is seen as 'negative' or 'unproductive'.

Build capacity of the Judiciary: Several organisations and environmental NGOs have already taken up projects and activities for building capacities of the judiciary, including communicating the significance of understanding environmental issues and struggles along with knowing the law. This has been done through orientation sessions, regular discussions and sharing of specific case studies. This is essential since the judiciary is integral to the redressal of conflicts with regard to EIAs in the existing framework.

Regional Focus: The MoEF has undertaken capacity building programmes for various constituencies such as state functionaries. These programmes need to draw participants from all regions. For example, officials from regions such as Northeast India are mostly unable to attend these programmes due to logistical problems or lack of information. . Secondly, there needs to be rigorous follow-up to capacity building programmes, through meetings, sharing of updated information, and discussions at local levels.

19. Compilation of Photographs

Bhadradri Thermal Power Plant



Illegal construction works in full swing at the Bhadradri Plant site, Manuguru, prior to receipt of EC and CTO (Photo Credit: Ayesha Minhaz, Independent Journalist)



Villagers of Edullabayyaram (left) and Seetharamapuram (right) and NGT petitioner K. Narsayya recounting the surveillance before and heavy police presence during the public hearing



Fertile farm lands of adivasis, to be affected, in the vicinity of the Bhadradi Thermal Plant



Adivasi Villagers in Dhammakapeta Panchayat complaining of irregularities in land acquisition process and denial of R&R entitlements



Materials dumped at plant site in Sep, 2017 (left), Sign board of BHEL (right) which has supplied sub-critical technology materials – Project yet to be completed despite claim to complete it in March, 2017

Yadadri Thermal Power Plant



Foundation Stone of YTPP laid by the Chief Minister of Telangana at Village Veerapalem.



3.90 kms of Tungapadu Vagu (stream) flowing through the project site to be affected by YTPP



Interaction with project-affected at Vill. Tallaverappa gudem : Entire dalit hamlet of landless agricultural workers excluded from R&R as Social Impact Assessment (SIA) was not done by TSGENCO



Villagers at Veelapalem claiming that their forest rights have not been settled.



Oustees, mostly landless, at Dubba Tanda, asserting that they have not received full R&R and were not involved in public hearing process.



A glimpse of one of the many Lambada houses in Modugulakunta Thanda- affected but not acquired.



Public Hearing' of Yadadri TPP (May, 2016), with hardly any representation of women (Ph: Ayesha)

NTPC-Ramagundam Thermal Power Plant



Ongoing Construction of the coal stock yard for the new 2 x 800 RTPP (Sep' 2017)



A view of the air dense with SO₂ and particulate matter, near Mathangi colony



Large volume of untreated municipal waste from NTPC township being let into the nearby nallah, connecting with Godavari river.



The 3 crore investment in ETP for treating waste waters from the NTPC township gone waste as it remains dysfunctional since 10 years !



Farmer Mondaiya stands in backdrop of massive NTPC reservoir to which he lost his small parcel of land 40 yrs ago



A late night interaction in the dalit basti of Kazipali village: Grievances galore of health impacts, lack of jobs, pollution..



The huge ash pond which, local state, encroaches onto the nearby forest, without clearance.



Farmers complain that long, old rusty pipes do cause leakages, resulting in impacts on crops.

Kothagudem Thermal Power Plant



A view of the Old KTPS Units, having significant impacts on the crops and air quality in the vicinity



A view of the massive ash pond of KTPS and the dense air above it



KTPS Effluents being let into Boodidhavagu (Ash stream) and then into Kinnerasani river





Thick layer of pollutants right above the farmlands.



Elders and women of Suraram village complain of a host of health ailments due to pollution from KTPS



Vasu, a dalit landless person, grazes his goats in the grasslands next to the ashpond, which often fall ill due to consumption of polluted grass.



With potable water being a serious issue, many people are having to purchase water from private suppliers, adding to their economic burden.

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Part B: Project-Specific Materials

1. Bhadradri Thermal Power Project:

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b. EIA Report:

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c. Public Hearing Report:

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d. EAC Minutes:

EAC 32nd Meet Minutes http://environmentclearance.nic.in/writereaddata/Form-1A/Minutes/0_0_31123123012101MoM32ndEACT23-24Feb2015.pdf (Pgs 10-11)

EAC 36th Meet Minutes http://environmentclearance.nic.in/writereaddata/Form-1A/Minutes/0_0_6111912471291MoM36thEACT19-20May2015.pdf (Pgs 11-12)

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g. Critiques: Response to Replies of Proponent, Document by Dr. K. Venkat Reddy, Scientist (Retd)

2. Yadadri Thermal Power Project:

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b. Forest Clearance:

Stage-I Approval:

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c. EIA Report:

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e. EAC Minutes:

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d. EAC Minutes:

EAC 45th Meet Minutes [http://environmentclearance.nic.in/writereaddata/Form-1A/Minutes/0_0_111114123812131MoM45thEAC\(Thermal\)-noeastcoast.pdf](http://environmentclearance.nic.in/writereaddata/Form-1A/Minutes/0_0_111114123812131MoM45thEAC(Thermal)-noeastcoast.pdf) (Pgs 1-3)

EAC 46th Meet Minutes [http://environmentclearance.nic.in/writereaddata/Form-1A/Minutes/0_0_121114125112111MoMof46thEAC\(TPP\).pdf](http://environmentclearance.nic.in/writereaddata/Form-1A/Minutes/0_0_121114125112111MoMof46thEAC(TPP).pdf) (Pgs 1-7)

e. Submissions before NGT:

M/s Uma Maheshwara Dahagama versus Union of India and 2 Others (Appeal No. 46 of 2016)

- Submission by Applicant before NGT dt. 17th Feb, 2016.
- Reply filed by the PCB dt. 26th Sep, 2016 before the NGT
- Reply filed by the MoEF & CC dt. Sep, 2016 before the NGT
- Reply to Rejoinder and Annexures filed on behalf of the 3rd Respondent – NTPC Ltd” dt. 6th Feb, 2017
- Reply Statement by Respondent No. 3 (NTPC) dt. 27th June, 2016

4. Kothagudem Thermal Power Project (Sep, 2014)

a. Environment Clearance:

<http://environmentclearance.nic.in/writereaddata/Form-1A/EC/07172015124-2012.pdf>

b. EIA Report:

Final EIA Report of Kothagudem Thermal Power Plant (Sep, 2014)

<http://environmentclearance.nic.in/writereaddata/EIA/180920143AXTGHEYKTPS-EIAEMP.pdf>

c. Public Hearing Report:

<http://environmentclearance.nic.in/writereaddata/Public%20Hearing/19092014TRDTVY26Publichearingandactionplan.pdf>

d. EAC Minutes:

EAC 54th Meet Minutes

http://environmentclearance.nic.in/writereaddata/Form-1A/Minutes/3%20_54thMinutes.pdf (Pgs 15-17)

EAC 32nd Meet Minutes

http://environmentclearance.nic.in/writereaddata/Form-1A/Minutes/0_0_31123123012101MoM32ndEACT23-24Feb2015.pdf (Pgs 12-15)

EAC 36th Meet Minutes

http://environmentclearance.nic.in/writereaddata/Form-1A/Minutes/0_0_6111912471291MoM36thEACT19-20May2015.pdf (Pgs 5-11)

e. Site Visit Report:

Site Inspection to KTPS by Dr. M.T. Karuppiah, Scientist-C; of MoEF & CC Regional Office (South Eastern Zone) - Chennai, on 18th and 19th Nov, 2014 and certified compliance report dated 28th Nov, 2014

<http://environmentclearance.nic.in/writereaddata/online/EC/03022015UC0QCYQKKTPS-FinalUploadedforEC.pdf> (Pg 27)

21. Index of Persons Contacted

Sl. No.	Name	Details
1.	Satyanarayana Reddy	Member Secretary, Telangana State Pollution Control Board (TSPCB)
2.	Sharad Lele	Member, Expert Appraisal Committee (Thermal)
3.	Ritwik Dutta	Advocate, National Green Tribunal
4.	Shreedhar	Environics Trust
5.	Vimal bhai	Environmental Activist, Uttarakhand, Matu Jan Sangathan and National Alliance of People's Movements.
6.	Ayesha Minhaz	Independent Journalist
7.	Swathi Vadlamudi,	Special Correspondent, The Hindu
8.	Md. Fasiuddin	Sakshi Newspaper
9.	Nilesh Vijaykumar	Reporter, The New Indian Express
10.	Ramesh Rathore	Activist, Green Earth Society, Kothagudem.
11.	Dr. Babu Rao	Retd. Scientist, Indian Institute of Chemical Technology and Independent Environmental Expert Hyderabad
12.	Harinder Nandyala	Human Rights Forum and Activist, Yadadri TPP
13.	Adv. Suresh	Environmental Researcher and Activist.
14.	Kanneboyina Narsaiyya, Jeevan Kumar, VS Krishna, Sudha Kavuri	Activists, Human Rights Forum
15.	Raghu Kancharla	Senior Power Sector Analyst, Telangana
16.	Dr. EAS Sarma	Former Energy Secretary, Govt. of India and Forum for Better Vishaka
17.	Shri. Venugopal	Former Journalist, Prajashakti and Centre for Power Studies
18.	Dr. Thimma Reddy	People's Monitoring Group on Electricity
19.	Sreekumar Nhalur	Power Sector Analyst, Prayas Energy Group.
20.	Shripad Dharmadhikary	Activist Researcher on Energy, Water Issues, Manthan Adhyayan Kendra, Pune

About the Research Report:

The present work is based on a one-year study, enabled by a Fellowship from the Girish Sant Memorial Committee (GSMC), Pune and focuses on the regulatory institutional and procedural mechanisms governing the social and environmental aspects of Thermal Power Plants (TPPs) in the country, by way of an in-depth assessment of certain newly proposed/under construction (including expansion units) and old/operational plants in Telangana. Some of the key issues covered are environmental and social impact assessments and monitoring, environmental clearance, land acquisition and rehabilitation, spanning the entire project life

including planning, construction and operation. Along with a detailed assessment of the socio-environmental gaps and issues around the four identified projects i.e. Bhadradi, Yadadi, Ramagundam and Kothagudem thermal plants, the study tries to make certain generic observations and suggestions to strengthen the regulatory mechanisms. While some of these are process-specific related to EIA, public hearing and social impact areas, others are institution related i.e. on the role of PCB, EAC, MoEF & CC and civil society.

Coal-Fired Thermal Power Plants (TPPs) contribute a lion's share to the installed power capacity of this country, contributing about 76% of the total electricity produced. Over the decades, the social and environmental impacts and implications of these plants have been a major cause of concern, both to the government and civil society. The past two decades, also witnessed the slow evolution of a legal and regulatory regime that governs these plants. While on the one hand, climate change and cheaper availability of renewable energy sources are pushing governments and project proponents to re-consider prioritizing thermal plants, we are still, as a country, grappling with the socio-environmental costs of numerous TPPs that have come up in the past decades as well as quite a few plants that are in the offing. At the heart of this, lies the role of the regulatory institutions that have a mandate to ensure compliance with law, protection of environment and rights of affected communities. The report tries to understand and address this role of the regulatory bodies.

This Report is a small addition to the significant body of work that is already in the public domain on the socio-environmental governance processes of development projects (including power plants) in the country. It is hoped that the observations and suggestions in this Report would be relevant to and considered in right earnest by the appropriate authorities, expert bodies, civil society groups and concerned citizens in strengthening the overall governance framework, in the interest of the environment, people and the nation. The Full Report in English is available on the website of the Prayas Energy Group at <http://www.prayaspune.org/peg/memorial.html>.

About the Researcher:

Meera Sanghamitra was trained as a lawyer in Hyderabad and has had an abiding interest in environmental and social justice issues since college years, when, along with a few like-minded friends, she co-founded a small group called Grassroots. Between March 2008 -June, 2016, she has been associated and travelling with activist Medha Patkar and was involved full time with the Narmada Bachao Andolan – understanding and engaging on an everyday basis with the democratic struggle of thousands of oustees for decentralized development; right to land, livelihood, rehabilitation, environmental justice; touching at multiple levels, the interface of the people, state and society.

As a recipient of the Girish Sant Memorial Fellowship, she studied the social and environmental regulatory aspects of Thermal Power Plants in Telangana between Jan- Dec, 2017. She serves on the Governing Board of pro-people organizations like the Humsafar, Support Centre for Women (Lucknow), Bindrai Institute for Research, Study and Action (BIRSA), Ranchi and is also associated with other alliances including campaigns for judicial accountability, right to education, women's and transgender rights etc. She is also recipient of the Gorrepati Narendranath Memorial Fellowship (2017-18) given by Centre for Equity Studies. All along, she has also been involved with various activities of the National Alliance of People's Movements (NAPM), in different capacities, including as a National Organizer and National Convenor. *The researcher can be contacted at meeracomposes@gmail.com / Ph: 07337478993*