



## Forest and Environment Clearances

*Are these the problems for growth? Or are these the problems for environmental protection?*

An assessment by the Centre for Science and Environment, based on the data of clearances granted

### THE QUESTIONS WE ARE ASKING ARE AS FOLLOWS:

- What has been the scale of clearances granted in the country? How many projects have been cleared? How many have been rejected?
- Are environmental regulations the impediment for economic growth? In other words, are the clearances granted enough, or too few, to sustain growth as planners-industry want?
- What is the cumulative impact of these individual projects? Is there any consideration about this while granting clearances?
- What is the monitoring done to ensure that the projects, once cleared, meet environmental conditions and safeguards?
- What needs to be done? More clearances; more regulatory watch?

## 1. WHAT IS THE SCALE OF ENVIRONMENT AND FOREST CLEARANCES?

### A. How much Forestland has been diverted in the past five years?

- Forest clearances have been granted at an unprecedented rate in the last five years.
- During this period, (the 11<sup>th</sup> Five Year Plan period), 8,284 projects were granted forest clearance and 2.04 lakh hectare (ha) of forestland was diverted.
- The forestland diverted in the last five years is about 25 per cent of all forestland diverted for development projects since 1981. The pace of forestland diversion, therefore, has doubled in the last five years.
- In one single year – 2009 – as much as 87,883.67 ha of forestland was granted clearance.
- The area of forestland diverted in the last five years is equal to the average area of two tiger reserves. It is about four times the area of Panna or Sahyadri or Tadoba tiger reserve.

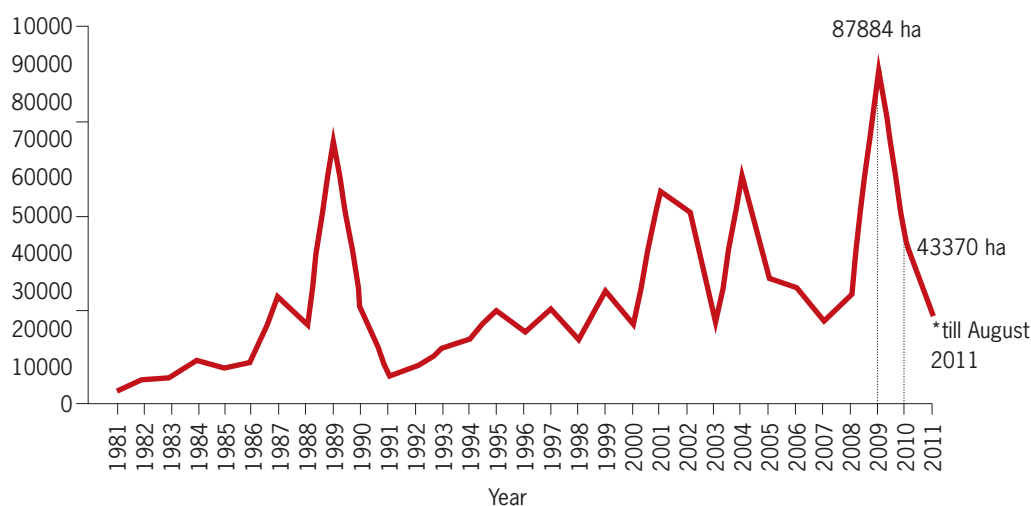
### Forestland diverted for development projects

Period/Year	Forestland diverted* (in ha)
1981-92	198421.19
8 <sup>th</sup> FYP (1992-97)	84587.07
9 <sup>th</sup> FYP (1997-2002)	147397.57
10 <sup>th</sup> FYP (2002-2007)	196262.32
2007	22033.78
2008	28509.45
2009	87883.67
2010	43370.38
2011 (till August)	22627.78
<b>11<sup>th</sup> FYP (2007-2012)</b>	<b>204425.06</b>
<b>Total forestland diverted for development projects</b>	<b>830244</b>

**153881 ha — 19% of all forestland diverted for development projects from 1981 till August 2011**

\*For all projects excluding regularisation of encroachments

### Forestland diverted\*



\*For all projects excluding regularisation of encroachments

### B. What has the forestland been diverted for?

- Since 1981, about 40 per cent of the forestland diverted is for mining and power projects.
- In these past 30 years about 1.48 lakh ha of forestland has been diverted for mining.
- In the last five years this pace has intensified enormously. As much as 50,000 ha were diverted for mining projects, which constitutes 25 per cent of the total forestland in that period. The maximum amount of forestland diverted for mining in any single year happened in 2010 – about 14,500 ha.
- In these five years coal mining accounted for more than half of all the forestland diverted for mining — about 26,000 ha. As many as 113 coal mining projects were granted forest clearance. This is by far the highest number of projects cleared in any five-year plan since 1981.

## Forest clearances in 11<sup>th</sup> FYP

One-fourth of all forest diversion was for mining

	Forest area diverted (in ha)	Percentage of total forest diverted (%)
Defence	13137.9	6.4
Social services, rehabilitation and human settlement	3405.8	1.7
Transport (road, railways)	24387.3	11.9
<b>Power projects</b>	18898.9	9.2
Hydel	5553.7	2.7
Thermal	2199.1	1.1
Wind	2760.4	1.4
Transmission lines	8385.6	4.1
<b>Mining</b>	49904.6	<b>24.4</b>
<b>Irrigation</b>	26839.6	13.1
Others (including industries)	67851.1	33.2
<b>Total area diverted</b>	<b>204425.01</b>	<b>100</b>

### C. What has been the scale of environment clearances in the past five years?

**Coal:** 181 coal mines given environment clearance (EC); the combined production capacity of these 181 coal mines is at least 583 million tonnes per annum (MTPA). In 2010, India produced about 537 million tonnes coal. So, during last five years, MoEF has granted EC to double the coal production capacity in the country.

**Thermal power plants:** 267 thermal power plants adding up to 2.1 lakh megawatt (MW) capacity granted EC. Current thermal power capacity is 1.2 lakh MW. 200 coal-based thermal power plants adding up to 1.76 lakh MW installed capacity have been granted EC. Current coal-based power plant capacity is 99,503 MW. Clearances will nearly double this capacity.

**Steel:** 188 steel plants were granted EC; adding 29 MTPA of sponge iron capacity and 89 MTPA of steel capacity. In 2010, India produced about 65 million tonnes of steel and 21 million tonnes of sponge iron. An additional 24 million tonnes of steel can be produced from these clearances.

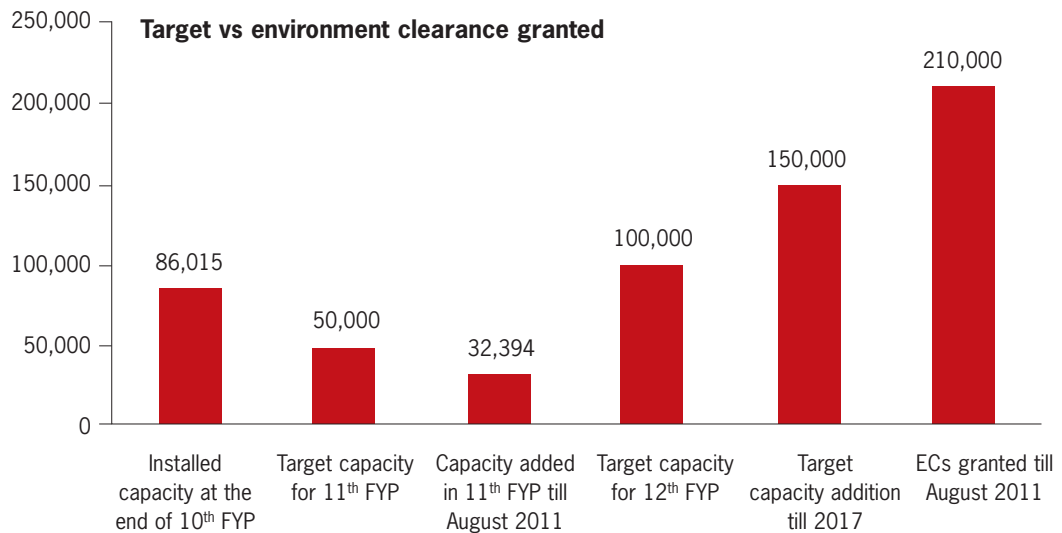
**Cement:** 106 cement plants with a production capacity of 190 MTPA granted environment clearance. At the end of the 10<sup>th</sup> FYP, the installed capacity was 179 MTPA. The clearances will double this capacity, taking it to 369 million tonnes per annum, which is also double the target set for the 11<sup>th</sup> FYP.

- The past five years (and in particular the past three years) have clearly been 'great' for forest and environment clearances – the pace and scale has been enormous. In almost all cases capacity has been doubled and is currently unutilised. This is the issue that we examine next.

## 2. ARE GREEN CLEARANCES THE IMPEDIMENT TO GROWTH?

### A. THERMAL POWER PROJECTS: "India needs power and environment clearances will keep us in the dark": True or false?

- The projected target for additional thermal power capacity during 11<sup>th</sup> FYP is 50,000 MW and during 12<sup>th</sup> FYP is 100,000 MW.
- In the past five years, till August 2011, MoEF has granted environment clearance to 210,000 MW of thermal power capacity.
- In other words, 60,000 MW of capacity additional to what has been proposed till 2017. Therefore, environment clearances have been given to all projects, which are needed to meet targets till end of 12<sup>th</sup> FYP. Why are more clearances even being sought? Why are more clearances being given?
- Worse, while MoEF has granted clearance to 210,000 MW of additional capacity in the 11<sup>th</sup> FYP. The capacity actually added is 32,394 MW.
- Why are projects that are cleared not being implemented first before more clearances are asked for? Is this a land and water scam? Is this new age license scam in the non-license raj of liberalisation?



### B. COAL MINING: B K Chaturvedi report wants environment and forest clearances dismantled for our coal-energy security

- Coal India limited (CIL) produces over 90 per cent of India's coal; it has two lakh ha of mine lease area, including 55,000 ha of forest area. The estimated coal reserves with CIL are 64 billion tonnes but CIL is producing only 500 MTPA. Who is then responsible for the shortage of coal in the country?
- Or are coal mining clearances just another way to facilitate access to captive coal mining by private companies?
- The environment clearances given in the past five years will double the current production — 583 million tonnes additional capacity has been cleared.
- But the question is if this capacity will be utilised or is this only a game to get more coal linkage license? Today many private companies have got coal mines but have not started production. In July 2011 Ministry of Coal issued warning to specific mines for immediate development or de-allocation. But of course nothing has happened. In the meantime, the Minister of Coal is on record demanding that environment clearances must be removed so that coal production is not jeopardised. Clearly other games are afoot.

■ What is certainly evident is that environment clearance is no impediment to growth in the country. But environment clearance is clearly a danger to environment – growth is not compromised, but environmental health and land, forest and water security has certainly been compromised.

### C. Is this a land and water scam?

**Land:** Five sectors together have been granted 3.8 lakh ha of land. The maximum land that has been diverted (as per the clearances granted) is for the coal mining sector, 1.5 lakh ha. Non-coal mining is the next top sector in terms of land with 1.2 lakh ha. Thermal power plants (TPPs) will require 0.61 lakh ha.

#### Sector-wise land granted

Sector	Land (in ha)
Cement	15803
Coal mining	149143
Iron and steel	29729
Thermal power plants	60534
Mining	120054
<b>Total</b>	<b>375263</b>

**Water:** The sectors together have been allocated 8.3 billion m<sup>3</sup> of water per year. TPPs will guzzle 84 per cent of this total water allocation, 7 billion m<sup>3</sup>. Iron and steel will consume another 13 per cent. The rest of the three per cent will be consumed by the other sectors together. All the water allocated is equal to what is needed to meet the daily water needs of about 250 million people (@100 lpcd).

#### Sector-wise water allocation

Sector	Water (in million m <sup>3</sup> /annum)
Cement	88.84
Coal mining	58.3
Iron and steel	1098.08
Thermal power plants	7000
Mining	90.43
<b>Total</b>	<b>8335.65</b>

### **3. WHAT IS THE ENVIRONMENTAL FALL OUT OF THESE CLEARANCES?**

#### **A. Is cumulative impact considered?**

- No. In fact, projects have been cleared without considering the cumulative impact on land, water, pollution, health and ecology and people. Currently, all projects are cleared individually, without once assessing the cumulative impact on the region or district. It is clear that the projects and mines once operational will make living hell for the people and the environment.
- The projects have been granted clearances in already critically polluted areas (CPAs) — *Singrauli, Korba, Raigad, Hazaribagh.*

#### **B. What is the environmental track record of coal mining areas? Should CEPI be removed or relaxed in these areas, as demanded by Chaturvedi Committee?**

- No. In fact, all coal mining areas have very poor environmental quality and most coal mining companies have very poor environment management record. It is precisely because of this that when MoEF undertook the CEPI exercise, most coal mining areas fell under the category of CPAs.
- It is also important to understand that the ambient air quality standards applicable for coal mines is more than double the national ambient air quality standards. For mines established before December 1998, these standards have been further relaxed. Similarly, the standards for effluents discharged from coal mines are also lenient.
- The monitoring of coal mines by State Pollution Control Boards and the Central Pollution Control Board shows that about one-third of the operating coal mines are violating the environmental norms.
- The performance of coal mining companies in mine closure is very poor. There are at least 240 abandoned coal mines where no reclamation has taken place.
- Of the seven coalfields falling under the CPAs, three coalfields (Angul-Talcher and Ib Valley of Mahanadi Coalfields Ltd. and Singrauli-Sonebhadra fields of Northern Coalfields Ltd.) have submitted their action plan and moratorium has been lifted from them. In addition, mining proposals are being processed for Jharia and Asansol-Raniganj coalfields even though these areas have not submitted their action plans.
- The only two coalfields where moratorium remains are Chandrapur of Western Coalfields Ltd. and Korba of South-Eastern Coalfields Ltd. Action plans is being prepared for both of them and moratorium is likely to be lifted from them soon.
- MoEF vide its letter dated 18 August, 2011 has also conceded to the demand of the Coal ministry and has declared coal mining project of CIL and its subsidiaries, in CPAs, could be processed as projects of national importance and be take up for environmental appraisal (effectively undermining the existing moratorium).
- In other words, Comprehensive Environmental Pollution Index (CEPI) has already been made into a farce and this is when a large proportion new coal mining and thermal power projects are also coming up in the same CPAs.
- Presently, moratorium is being lifted based on an action plans, which don't take into consideration the cumulative impact of the upcoming projects. Considering the scale of upcoming coal mining-thermal power plant in these areas, if proper action is not taken now, most of these areas are likely to remain critically polluted. This is why there is so much popular unrest in these areas, with a number of matters going to courts.

#### **C. What is the cumulative impact of thermal power projects?**

- It is important to note that TPPs will be concentrated in districts with coal or with access to imported coal. Of the top 10 districts where environment clearance has been granted to coal-based TPPs, six were declared as already critically polluted.

### Projects granted environment clearance during 11<sup>th</sup> FYP in critically polluted coalfields

District	Coal mining capacity (in MTPA)	Coal-based thermal power capacity (in MW)
Korba	77.64 +	4220
Angul-Talcher	72.17 +	5734
Hazaribagh-Chatra	97 (20% of India's current production)	4135
Singrauli	48.375 +	10080
Chandrapur	25.576 +	7260
Raigarh	19.2 +	4200
Jharsuguda	16.5 +	5095

#### D. Does environment clearance take into account the cumulative demand for water?

■ No. Environment clearance does not consider the impact of water consumption by power and industrial projects on competing users or regions. They are granted based on a water allocation letter from water resources departments of the states. Interestingly, these letters clearly mention that the state governments take no responsibility if allotted water is not available. It is for this reason that we are already seeing huge protests against these projects in the country.

#### Top 10

Districts	Capacity of coal-based TPP (in MW)	Remark
Nellore	12260	Impact on marine ecology likely
Kutch	10195	Impact on marine ecology likely
Singrauli	10080	Critically polluted area
Cuddalore	8020	Critically polluted area
Nagpur-Chandrapur	7260	Critically polluted area
Janjgir-Champa	6043	Emerging coal-based power and steel industry hub
Angul	5734	Critically polluted area
Nagapattinam	5510	Fishing as the main occupation, the impact of sea discharge will be immense
Jharsuguda	5095	Critically polluted area
Korba	4220	Critically polluted area

#### ■ Mahanadi: The lifeline of Chhattisgarh and Odisha: over-sold

In the last five years, 24 thermal power projects of 19,500 MW installed capacity have been granted ECs, which will withdraw water from Mahanadi and its tributaries. The total water consumed by these projects is 1.55 million m<sup>3</sup> per day – nobody knows how much is this of the flow of this river and at what point of the year can this be afforded without hurting livelihood and drinking needs.

#### Water allocated from Mahanadi

State	Number of coal-based TPPs	Installed capacity (in MW)	Water allocated (in million m <sup>3</sup> /day)
Chhattisgarh	19	16533	1.31
Odisha	5	2910	0.24
<b>Total</b>	<b>24</b>	<b>19443</b>	<b>1.55</b>

#### 4. ARE THE CLEARED PROJECTS MONITORED TO ENSURE THAT ENVIRONMENT AND FOREST CONDITIONS ARE MET?

- Frankly, there is no information about this. In the case of ECs, MoEF has recently issued guidelines for monitoring of projects. But how this is working is not known.
- In the case of forests, there is some compiled information. But this only proves that monitoring is poor and worse, what little is monitored is found not to meet conditions.
  - Total cases granted clearances: 22,264
  - Total cases monitored: 12,225 (roughly half)
  - Total cases not meeting conditions: 5091 (roughly half)
- There is no idea what happened to the cases, which were non-compliant.
- Further, of the 12,225 cases monitored as much as 90 per cent were in just two states – Rajasthan and Uttarakhand. Clearly this is a farce.
- If there has to be any environmental integrity to the process of seeking and granting clearances, then it is imperative that MoEF concentrates on monitoring clearance conditions.

#### 5. WHAT NEEDS TO BE DONE?

##### A. Forest clearance

- The present system of granting forest clearance is clearly not working. Forest clearances are being granted at an unprecedented rate without considering the impact of forest diversion on forests, wildlife, water and the community.
- No impact assessment reports are prepared, nor is the ecological and economic value of forests evaluated. In fact, there is no system in place to check the veracity of information based on which forest clearances are granted. There is a need for fundamental reform in the forest clearance process if we want to safeguard the ecological integrity of the country.
- We would suggest that there should be a complete stop to this process until a transparent and effective system is put into place.

##### B. Environment clearance

- In all cases – coal, iron ore, bauxite, limestone, TPPs, steel, cement – where clearances exceed targets and capacity, there should be a moratorium on further clearances.
- In the case of TPPs, there should be an assessment (by the Ministry of Power) of why so much of the cleared capacity is awaiting commissioning. Only when this assessment has been done and projects which have got clearance (and land and water) but have not yet been commissioned, cancelled, then the MoEF can consider granting the same capacity as a swap. This swap can be done with other sectors as well.
- MoEF must use this moratorium period to strengthen and improve its regulatory procedures as per the recommendations of the Supreme Court in the recent Lafarge judgement.
- MoEF must deepen the process of public assessment and scrutiny of all projects. This can be done by greatly strengthening the public hearing process, which is critical to ‘listen and hear’ people affected by the projects. This can also be done by ensuring that all electronic recordings (done in all cases) are made available on a real-time basis through streaming on the internet.
- MoEF must revise its Environmental Impact Assessment Notification to stipulate that it will only clear projects after considering the cumulative impact.
- MoEF must strengthen, not dismantle, the CEPI, which allows it to scrutinise projects based on cumulative impact.
- MoEF must strengthen its monitoring procedures so that affected people can scrutinise the compliance with conditions. Only then can the environment be safeguarded.