

Mining Forest Environment and development



Forest (Conservation) Act, 1980 Forest (Conservation) Rules, 1981



- No forest land should be diverted for non-forestry purposes without concurrence/prior permission of Government of India.
- Forest means forest by dictionary sense.
- Hon'ble Supreme Court in Tirumapad Vrs UOI & Others defined "forests" as occurring in dictionary sense.
- The Hon'ble Supreme Court instructed State Governments to form DLC (District Level Committees) in each district.
- The Hon'ble Supreme Court also observed that while diverting DLC land, disreservation orders should be obtained from Union of India.

Wildlife Protection Act, 1972.



- Notification of Wildlife Sanctuaries/National Parks cannot be changed without approval of legislature.
- Supreme Court banned all mining activity in National Parks and sanctuaries.

EIA NOTIFICATION 1994



All projects are to be subjected to public hearing except in the following cases :

Small scale industrial undertakings located in notified/designated industrial area/industrial estates or areas earmarked for industries under the jurisdiction of Industrial Development Authorities;

Widening and strengthening of Highways

Mining projects (major minerals) with lease area up to 25 ha;

Units located in export processing zones, special economic zones and

Modernization of existing irrigation projects.

EIA NOTIFICATION 1994




The Ministry of Environment & Forests have been delegated with powers under Environment Impact Assessment Notification, 1994

The Pollution Control Boards to accord NOC and arrange for public hearing for such units and issue guidelines for obtaining environmental clearance

The units going ahead with the construction and operation attracts provisions of E(P)Act 1986 for violation of the provisions of EIA Notification, 1994.


The Regional Office has to ensure strict compliance and to issue notices to such units to obtain environmental clearance

The following categories are subjected to environmental clearance with any investment limit.



- Pesticides (technical),
- Petrochemical complexes,
- Bulk drug and pharmaceuticals,
- Asbestos and Asbestos products,
- Hydrocyanic acid and its derivatives,
- Chlor alkali industry,
- Integrated paints complex ,
- Tourism projects between 200-500m of High Tide Line in coastal areas and at 1000m altitude with investment of more than Rs. 5 Crores,
- Mining projects (major minerals) with leases more than 5 ha.
- Tar roads in Himalayas and/or forest areas.
- Distilleries,
- Raw skin and hides,
- Dyes,
- Foundries (individual),
- Electro-plating and
- Meta amino phenol.

Except the above projects, other category of new projects with investments less than 100 Crores and expansion/modernization projects with investment of less than 50 crores do not attract the provisions of EIA Notification, 1994.



Any item reserved for small scale industrial sector with investment of Rs. Less than 1 Crore does not fall under the purview of EIA Notification, 1994.

EIA Notification is not attracted in case of defence related road construction projects in border areas.

All the Thermal Power Projects located within the radius of twenty five Km Boundary of reserved forests, ecologically sensitive area which may include National parks, Sanctuaries, Biosphere Reserves, critically polluted area and within fifty km of inter-state boundary shall require environmental clearance from the Central Government.



DEVELOPMENT


- CHANGE LEADING TO IMPROVEMENT OR PROGRESS

ECONOMIC DEVELOPMENT

- TO ACHIEVE SET OF GOALS


SUSTAINABLE DEVELOPMENT

- INCREASE PER CAPITA WELLBEING OVER TIME
- SUSTAINABLE DEVELOPMENT AS A MEASURE OF NON DECLINING NATUARAL WEALTH
- EACH GENERATION SHOULD INHERIT ATLEAST A SIMILAR ENVIRONMENT
- AGGREGATE OF NATURAL (OR MAN MADE) CAPITAL DOES NOT DECLINE BETWEEN ONE GENERATION AND NEXT



VALUE ADDITION and Sustainable environment

- Whether value addition issues are linked to **optimum resource utilization**.
- How much weightage in terms of value addition is given to **Site of resource availability**.
- Whether all **waste streams** have been thoroughly investigated.
- Whether project has shown overall **commitment to sustainable development**.



POSITIVE LINKS TO VALUE ADDITION

Forest Policy, National Forest Policy, 1988, State Forest Acts, Indian Forest Act, 1927:

- Emphasising conservation of forests, forest protection through indigenous communities and value addition to NWFP.

Environment Policy


- Emphasizing on and exercising polluter pays principle discourages excessive and inefficient use of resources and stimulates more efficient use (value additions to environment).

Economic Policy

- Greater economic and price stability promote sound resource management and higher standard of living increases demand for better environmental quality, general efficiency and technological innovations.


Environment + Economic Policy

- Entering into and exercising Eco mark schemes, Environmental audits, ISO 14001 - Environmental Management Systems which result into amalgamation of environment and Economics.



NEGATIVE LINKS TO VALUE ADDITION

- Changes in price structure and policy create poverty and unemployment over exploitation of natural resources leading to unsustainable agriculture and for other development sectors encouraged by policy instrument.
- Trade liberalization and export promotion if not linked to resource conservation principles and not properly controlled have bearing on environment.
- Dismantling the environmental management and protection apparatus may give economic gains for a short term but finally lead to environmental deterioration, inefficient use of resources, the decrease in productivity and value loss.



parameters linked to value addition

- Reclamation can refer to returning to low maintenance native vegetation or restoring a land use such as agriculture or forestry with least economic input subsequently.
- Low maintenance land use is sustainable in the long term and requires an understanding of the basic concepts of soil development, plant succession and species diversity.
- Selection of native species for reclamation help in accelerating the natural successional processes for the plant community development towards achieving ecosystem stability.
- The vegetation of the native ecosystem are generally resilient to disturbance and the demand for nutrients is met principally by nutrient cycling and natural inputs.

Pressure Indicators

- Old rejects, derelict lands and abandoned mines create more pollution and affect the existing mines adding burden of unwanted expenditure in abatement measures.
- Clearing of existing vegetation and soil disturbance slow process of ecosystem redevelopment on the lands affected by mining create significant environmental impact
- The exposed surfaces and derelict land put burden on environment when not restored timely and properly.
- CO2 emission, soil loss and erosion, biodiversity extinction from these habitats create impact at regional and global scale. Delay in restoration may need large investment
- Impact on fragile ecosystems, critical environmental functions e.g. stabilization and regulation, biodiversity values, possible thresholds of natural resources and maximum sustainable yield levels.
- The multi-functionality of the environment, including long-term regulatory functions.
- Environmental risk.
- Impact on vulnerable social groups that depend greatly upon the natural resources in their immediate surroundings. They may adopt unsustainable use of the environment with decline of living standards and absence of realistic alternative income options.

UNCERTAINTY

MEASURE UNDERSTANDING OF ECOSYSTEM FUNCTIONING

OCEANS MAY NOT BE NEEDED FOR FOOD OR CLIMATE REGULATION

NO IMPORTANCE TO NUTRIENT VALUE OF COASTAL ECOSYSTEMS

SUBSTITUTION NOT CERTAIN

IRREVERSIBILITY

- ONCE LOST FOREVER
- NO MAN MADE CAPITAL CAN CREATE

• SPECIES

EQUITY

POOR MORE AFFECTED THAN RICH(OF BAD ENVIRONMENT)

WILLINGNESS TO TAKE ACTION

WILLINGNESS TO PAY

RICH ARE WILLING TO PAY MORE...

RISING NATURAL RESOURCES STOCK

MAY ENCOURAGE SUSTAINABLE LIVELIHOODS

LINKAGE IS CONSPICUOUS IN DEVELOPING WORLD

SUSTAINABILITY AND RESILIENCE

RESILIENCE---RESPONSE TO ENVIRONMENTAL CHANGE

STABILITY---TO MAINTAIN STRUCTURE AND FUNCTION

NATURAL ECOSYSTEMS SELF REGULATING

INCREASED HUMAN
MANAGEMENT AND CONTROL
EXTERNAL DISTURBANCE
SUDDEN SHOCK
CUMULATIVE OR CONTINUOUS STRESS

Environmental impacts and economic development

ecological

production potentials and fragility (stability) of ecosystems and urban environments, thresholds of irreversible change;

social

population growth rate, poverty, land tenure security, income and employment diversification, unemployment rate and

institutional

research and extension services, decentralization policies, law enforcement capabilities and application of the polluter-pays and the precautionary principles.

(pressure and Response Indicators)

tools

- Environmental impact assessment
- Regional EIA
- Carrying capacity
- Natural resource accounting
- Strategic environmental assessment

CONCLUSION

- Economic growth can only be achieved by **diversifying energy sources, decreasing energy intensity and technology transfer.**
- Development must contribute to enhance basic social services to help maintenance of environmental functions and **sustainable resource-use practices or systems.**
- Depending on the project objectives on natural resource harvest and sustainable concept, **price of environmental commodities be fixed and project taxed realistically.**

Integrated planning for considering together the economical social and ecological issues for sustainable development required.

Segregating one parameter during the development phase may lead to collapse of resource link, thus affecting the economy.