

## Recent advances in Environment & Forest Laws with special reference to Oil, Petroleum & Gas Sector

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**Abstract:** - A workshop was organized recently in by North Eastern Regional Office, Ministry of Environment, Forest and Climate Change (MoEF & CC), Shillong, Meghalaya, supported by Oil Industries at the State Convention Center in Shillong, Meghalaya. The theme of the workshop is, 'recent advances in Environment & Forest Laws with special regard to Oil, Petroleum & Gas Sector'. More than 120 participants from the regulatory agencies which includes representatives from MoEF & CC, New Delhi, Central Pollution Control Board, State Forest Departments, Department of Geology and Mining and State Pollution Control Boards as well as the industry sectors. The aim of the workshop was to bring both regulators and user agencies concerning Oil, Petroleum and Gas Sectors on one platform for a deliberation on issues about the Environment (Protection) Act, 1986, Forest (Conservation) Act, 1980; Wildlife (Protection) Act, 1972 and other ancillary acts thereto. The workshop was aimed to discuss and carry out recent Orders, Directions, Guidelines issued by MoEF&CC besides the court orders issued from time to time; and to enlighten user agencies concerning Oil, Petroleum and Gas Sectors on the applicability of the provisions laid down within the EIA Notification, 2006; FC Act, 1980; WP Act, 1972 and activities within Eco-Sensitive Zone and inside Protected Areas. The workshop was designed for pondering on the process of following basically extant rules concerning Environment and Forest by the user agencies and adopt available cleaner technology thereby achieving environmental norms. The main non-compliances of EC stipulated conditions were also discussed.

**Key Words—** *Eco-sensitive Zone, Environmental Clearance, Protected Areas, Wildlife.*

### I. INTRODUCTION

The Environment (Protection) Act was enacted in the year 1986 with the target of accommodating the insurance and improvement of the earth. It enables the Central Government to set up authorities [under area 3(3)] charged with the command of forestalling natural contamination in the entirety of its structures and to handle explicit ecological issues that are impossible to miss to various pieces of the nation. The Act was last corrected in 1991. In India, the establishment of natural effect evaluation (EIA) began in 1976-1977, when the Planning Commission solicited the Department from Science and Technology to look at the river valley projects from an ecological edge. The Ministry of Environment and Forest under sub-rule (3) of Rule 5 of the Environment (Protection) Rules, 1986 notified the EIA notification on 27<sup>th</sup> January 1994 making Environmental Clearance (EC) mandatory for expansion or modernisation of any activity or for setting up new projects listed in Schedule 1 of the Notification. Further, on the 14<sup>th</sup> September 2006, Ministry of Environment and Forest (MoEF) notified new EIA legislation. The said

Notifications imposing certain restrictions and prohibitions on new projects or activities, or on the expansion or modernization of existing projects or activities based on their potential environmental impacts as indicated in the Schedules of the Notifications, being undertaken in any part of India, unless prior environmental clearance has been accorded in accordance with the objectives of National Environment Policy as approved by the Union Cabinet on 18<sup>th</sup> May, 2006 and the procedure specified in the notification, by the Central Government or the State or Union territory Level Environment Impact Assessment Authority (SEIAA). To follow up implementations of environmental safeguards by projects accorded Environmental Clearance, Ministry of Environment and Forest has set up Regional Offices. Other primary mandates of the Regional Offices include (1) maintaining liaison and provide linkage with the project authorities and State Pollution Control Board, Central Pollution Control Board and its regional office, Central government agencies (such as BSI, ZSI, FSI), Research Institutes, Universities, in implementation of programmes related to environment and (2) organizing workshops to

provide linkages of the project proponent with research organization, regulatory authorities etc.

## II. THE REPORT

Shri S. K. Aggarwal, Deputy Director General of Forests (DDGF), while addressing the gathering with a keynote talk, deliberated that the Forest (Conservation) Act, 1980 may be a regulatory Act with only 5 (five) sections. He informed that MoEF & CC has been regularly working in streamlining the method in efficient and coherent manner including permission for prospecting and exploration of various minerals within the forest areas in line with FC Act and orders from the Hon'ble Supreme Court. Furthermore, he mentioned that within the case of Environmental Clearance, there are recent developments with regard to Environment (Protection) Act, 1986, Eco Sensitive Zone, orders of Apex Court and National Board of Wildlife. He also informed that as far as Oil and Gas industries, there are tons of confusions concerning drilling operations whether it's exploratory or development well. Even, to an extent that bore hole and shot hole were considered as same. In this regard, MoEF & CC deputed a committee to go to the Seismic Survey sites in Jorhat and Damoh to have first-hand experience in terms of potential damage if any on the flora and fauna which resulted in relaxation of conditions of Seismic Survey of shot holes i.e., 80 shot holes per Square Kilometer. He concluded his speech by specially mentioned that thanks to the persuasion of organizations like Oil India Limited, Oil and Natural Gas Corporation, Hindustan Oil Exploration Company Ltd., Vedanta, Indradhanush Gas Grid Limited, the said workshop was organized for mutually deliberating on concerns concerning clearances like Environment Clearance, Forest clearance and National Board of Wildlife.

Shri Saibal Dasgupta, Additional Director General of Forests (ADGF) stated that the strongest debate we face today in every industry is that the debate between development and conservation. He stressed on the very fact that both the Ministry and the Project authorities shouldn't and instead should devise mean to figure together for a sustainable development. He mentioned that India may being a fast-developing country, and the need of the hour is that the development of infrastructure by being self-sufficient with the available resources but at an equal time the conservation issues should even be looked into. He told that India is one among the few countries despite being within the pressure of development of infrastructures, have managed to take care of a forest area of 24.3% of its total geographic area. He also expressed his happiness that this workshop and discussion by the ministries, regulatory bodies and industries are necessary to deal with all issues concerned and can help in coming to a

conclusion on solving those issues that might ease both development and conservation hand in hand. He stressed that the choices made should be supported scientific reasons instead of being arbitrary.

Shri Amar Nath, (Joint Secretary, Ministry of Petroleum and Natural Gas) mentioned that North Eastern Region (NER) is a very special a part of India, where the Government of India had a keen interest due to presence of its rich reserves of oil & gas. He stated that the Digboi petroleum refinery in Assam has produced oil since last several years. However, in terms of potential of oil and gas, lately, the production has declined, as oil and petroleum sectors companies aren't ready to introduce the newest technology in operations also as in research and development. He mentioned that consistent with several renowned researchers within the field of oil and gas, the NER could at some point become one among the foremost potential basins in terms of oil and gas production. He further, stated that oil and gas is one among the essential needs of the country at this point of time. But this sector has its own challenges, to keep the environment and at an equal time developing such natural resource for the advantage of humanity. He mentioned that maintaining a balance may be a challenging job for the policy makers to form this twin transition i.e., energy alongside environment. He stated that nearly 36% of the energy is provided by the oil and gas industry which goes to further increase with urbanization and industrialization. He told that in terms of extraction and processing, oil and gas is one among the cleanest industries and as far because the emissions issues are concerned it's not the refining industry but the top users which is additionally called because the scope-3 emissions. Emissions issues is one among the items which should be accounted while framing the regulations concerning petroleum. He also mentioned that we've to guard our surroundings and frame the regulations but the regulations should be best regulations counting on the impact of the activity and the way to stop it. It's vital to form smart regulations counting on the sort of industry (oil & gas, coal, stone mining etc.) and this is able to need involvement of the industry, the regulatory bodies and the policy makers. It's also to be noted that when the regulations are made, there should be clarity about its application counting on the sort of industry. It's extremely important that the processes are understood for respective industries. He emphasized on simple doing business and positive framework emerging from the discussions and deliberations during the workshop.

Dr. Buragohain (Indradhanush Gas Grid Limited) highlighted the technical aspects of the 1,656 km gas pipeline connecting the North Eastern States of Assam, Arunachal Pradesh, Meghalaya, Mizoram, Manipur, Nagaland, Tripura and Sikkim with GAIL's Barauni-Guwahati NG Pipeline as a part of Prime Minister Urja Ganga Scheme. He informed that North East Gas Grid (NEGG) Project was conceived as per

Hydrocarbon Vision 2030 for North East India, released by Ministry of Petroleum and Natural Gas on 09.02.2016. The project is a joint venture agreement by the five PSU's IOCL, OIL, ONGC, GAIL & NRL with equal equity contribution and was signed on 20.07.2018 while IGGL was registered on 10.08.2018. He gave a detailed presentation about the project and requested all concerned departments to speed up the process for granting necessary clearances such as Forest Clearance and NBWL Clearance.

Shri J. Lahiri (Oil India Limited) gave a presentation on problems faced by oil companies concerning obtaining Forest Clearance (FC). He informed that though timelines are stipulated for grant of FC of various categories, however, in practical it takes 3 to 4 years in getting Stage-I Approval. He also opined that Oil & gas extraction should be treated as non-mining activity under FC Act. He further, stated that FC shouldn't be linked with EC application, as grant of EC is kept on hold till Stage-I Approval is granted. Lahiri desires that MoEF & CC should have separate provision and guidelines on FC to oil & gas activities, digitized maps for Forest and Wildlife areas in NER, could also be allowed supported latest satellite imagery and revisit on the need on declared Protected Areas (PAs)/Reserve Forests within the NER, where ground reality have changed over the time since after their Notifications due to change in demography. Mining proposals up to five ha of forest lands MoEF & CC may allow Regional Office and not present practices of its approval from Central Government, which may be a very lengthy and time-consuming process. Simplification of FC application process and FC Act shouldn't be applicable for accessing reservoir at 3-4 km depth using ERD technology. Formalities associated with CA land could also be considered both at par for PSUs & Private operators. He stressed on need of specific guidelines for venture Companies with PSUs. He further acknowledged that Seismic Survey in Eco-Sensitive Zone (ESZ)/PAs were permitted earlier but, sometimes, survey isn't permitted at the present. Shri Saibal Dasgupta, while commenting on the presentation stated that clearances are becoming delayed not at the Central Government level; but by the State Governments thanks to issues like Compensatory Afforestation lands, etc. He stated that government and user agencies should sit together to deliberate on proactive measures to bring out solutions.

Shri Lahiri, also spoke on the difficulties faced by the Oil & Gas E & P Operators in connection to obtaining approval from National Board of Wild Life (NBWL) and executing projects in 10 Km Eco-sensitive Zone areas. He appealed to MoEF & CC for the later consideration: (i) Wildlife division to reinstate its guidelines dated 26.09.2014 which advises State Forest Directorate to not handle proposals for 10 Km ESZ areas, as Wildlife Protection Act, 1972 isn't applicable, (ii) projects executed in 10 Km ESZ areas, outside the forest boundary,

are treated at par with the projects executed inside the Protected Areas and stringent conditions are imposed at the present, it should be for specific site, (iii) Oil & Gas E&P activities aren't to be prohibited in final site specific ESZ notifications, (iv) No NBWL approval to be imposed for the Projects executed in 10 Km ESZ areas if Environment Impact Assessment (EIA) Notification, 2006 isn't applicable for the Project, (v) 2% of Project Cost is demanded towards Corpus Fund of the State Forest Department for projects executed within the 10 Km ESZ areas which are withdrawn by Wildlife Division's OM dated 28.10.2015, (vi) separate form could also be introduced for proposals executed in 10 Km ESZ area and not using an equal Form used for proposals executed inside Pas and (vii) North-Eastern States to think about for holding State Wildlife Board Meetings Quarterly so as to avoid delay in getting approval for the projects from NBWL. Shri Sandeep Sharma (Assistant Inspector General) gave a presentation on Forest Clearance related issues given by MoEF & CC. He highlighted the rationale behind the Forest (Conservation) Act, 1980 and briefed about the varied rules and guidelines for Oil & Gas activities under the FCA, 1980. He informed the gathering that Ministry have taken decision regarding Seismic Survey that drilling of 80 shot holes up to 6.5-inch diameter is permitted at state level with none compensatory levies. Permission for exploratory and developmental wells is to be sought on Form-A and is taken into account as a proposal under FC Act with applicable compensatory levies. He also informed that approach road should be a part of the proposal. Petroleum Mining Lease for execution of PML User Agency should fill form made for permission under Section-2 (iii) of FCA 1980. No CA charges are to be paid but NPV @ 2 per cent of entire lease area shall be paid before execution of PML. NPV is that the value of the ecosystem to be lost as a result of the impact of the project. With regards to Petroleum Exploration License, no permission is required for grant of this license.

Dr. H. Tynsong (Scientist 'D', MoEF & CC) presented on the non-compliances of Environmental Clearance conditions stipulated for Oil companies. He listed eight major non-compliances by industry while carrying out exploratory drilling activity. He mentioned the main non-compliances which includes (i) Environmental Clearance given for exploratory drilling, whereas well was developed without obtaining fresh clearance from the Ministry for development well, (ii) project didn't obtained permission from the State Forest Department about no impacts of the proposed drilling on nearby reserved forests, (iii) no monitoring of RSPM, SPM, SO<sub>2</sub>, NO<sub>x</sub>, HC & HOC from DG sets, where drilling and testing goes on, (iv) waste pit not properly lined with HDPE lining, (v) operates without valid EC, (vi) no reclamation plan for existing oil sludge pits, (vii) recovery of oil from stored oil sludge and (viii) management of oil spills.

He also presented recent research findings on effect of flaring of gas in oil field of Assam on Rice Cultivation, effect on the butterfly (*Eurema hecabe*) and its host plant (*Cassia tora*) and Physico-Chemical changes in water by contamination of crude oil in oil field areas of Sivasagar district, Assam, India. He requested Oil companies to deal with the adverse impact of flare gas and oil drilling activities based on recent research findings. He concluded his presentation by requesting the project proponent to sponsor research projects such as: i). research to figure if any impact is being caused by emissions, gas flaring, fugitive emissions and other pollutants on the encompassing forests and ii) effect of Oil Refinery/Petrochemical/GGS effluent on aquatic organisms.

Dr. Shantanu Kumar Dutta (Scientist 'E', CPCB) talked on Legal Issues concerning oil and petroleum sectors. He informed the gathering on the Hon'ble NGT Order dated 03.08.2018, that Environment Compensation (EC) has been notified for levying Environmental compensation for industries for flouting environmental norms. He then highlighted the difference between Penalty and Environment Compensation. Dr. Dutta while talking about pollution issues by oil companies he mentioned that while injecting the water during drilling stage, water was high in oil & gas content and when it leaks from the wells it polluted the environment. He also mentioned that no NOC from CGWA was obtained before any drilling operation, no well-designed effluent pit has been observed in Assam and spillage of oil and problem of flare gas.

Shri W.I. Yatbon (Deputy Inspector General, MoEF & CC) presented on regulatory mechanisms for projects executed in 10 Km ESZ areas or inside the PAs was given. He highlighted various guidelines under Wildlife Protection Act, 1972; EPA, 1986 and various Supreme Court/NBWL on ESZ provisions. He informed that before ESZ is notified, the ten km thumb rule are going to be applicable setting up developmental projects. He clarified various issues pertaining ESZ stating that ESZ notification for various NE states is under process. the problems raised by the User Agencies were specifically addressed alongside information associated with the newest guidelines.

Dr. Bajpayee (Joint Secretary, MoEF & CC) gave a special address mentioning that the issues raised by the E&P industries in the workshop are already under discussion at the Ministry level and some are at the stage of final discussion. Active and continuous engagement of both the Ministry and the industry is required to move forward with sustainable development because every development is meant for the human kind and human race alone cannot survive without the environment. He further stressed that the Industry sector should be serious in complying with the EC stipulations and going beyond it. He informed that MoEF & CC is concerned

about the issues faced by the industries and suggested that both need to work together to solve the issues and will try toward smoothing the process of getting clearances with simpler and easy. Further, he suggested for international benchmarking in terms of environmental aspects focusing mainly on the compliance.

Shri Siddhanta Das (Director General of Forests and Special Secretary, MoEF & CC) chaired the panel discussion accompanied by Shri S. K. Aggarwal (DDGF) and Shri Sai Subramaniam G, (Director, Cairn (Oil & Gas), Vedanta). Shri S. Subramaniam while participating within the discussion mentioned that various clearances should be given on time for meeting Prime Minister's vision to scale back oil import by 2030 as delay in getting clearance directly hampers the production time. Therefore, he mentioned that MoEF & CC should mandate that if clearances aren't given within the stipulated timeframe it should be taken as deemed approved. He further mentioned about NGT order 01.03.2019, extraction of ground water from over depleted zones has ambiguity of definition of ground water, saline or portable grade. in this regard, he stressed upon on how & to whom the industry can search for clarifications of MoEF & CC guidelines for expediting business activities. Shri Siddhanta Das narrated that there's no provision for deemed approval, however, deemed disapproval exists i.e. if certain conditions aren't met, the project are going to be rejected. He informed that industry seeks approvals during the later stage of the project which ends up in delays. He encouraged industry to start applying for various approvals before starting the project which can give time to Ministry for grant of clearances as there's transparency within the procedure. He further detailed on Air/Water/Environment/Forest Act. He mentioned about Eco Sensitive services of forest which cause NPV to be paid by user Agency and relaxation of norms on Seismic Survey. Ambiguity in considering Oil as mineral and defining Oil & Gas extraction as mining activity. FCA applies to both above and underground, as scientifically extraction of mineral from underground can affect aquifers.

Shri Sunil Bhagat (General Manager, ONGC), informed that due to no notification of ESZ and blanket ban around 10 KM radius ESZ is affecting production of ONGC in North Eastern Region. Shri Siddhanta Das mentioned that till ESZ is defined, 10 KM radius is required to be maintained by law. Proposal of ESZ notification needs to come from State Govt., it requires PH then draft notification is notified. Shri R. K. Borah, (Oil India Limited) told that as per FCA and guideline issues in Jan, 2014 if forest area is inside the *Petroleum* Mining Lease area full or part, they required to take FC under Sec 2(iii) for the entire block and we can't start any activity in the entire block. Shri S. Das mentioned that if such cases arise divide the block into Forest & non-forest area and start operation in non-forest area by giving undertaking.

At the end, following points/issues it's felt necessary for concerned authorities to think about amending/incorporating within the relevant Acts, Rules, Notifications, Office Memoranda etc:

### III. FOREST RELATED MATTER

1. Oil & gas extraction should be treated as non-mining activity under FC Act.
2. FC shouldn't be linked with EC application, as grant of EC is kept on hold till Stage-I Approval is granted.
3. MoEF & CC should have separate provision and guidelines on FC to grease & gas activities.
4. Digitized maps for Forest and Wildlife areas in N-E, could also be made available to the public publicly domain for straightforward access and convenient of proactive action for User Agency.
5. Supported latest satellite imagery, status of declared Protected Areas (PAs)/RFs within the North-Eastern States, where ground reality has changed over the period of time since after their Notifications could also be reviewed.
6. Mining proposals up to five ha of forest lands MoEF & CC may allow Regional Office and not present practices of its approval from Central Government, which may be a very lengthy and time-consuming process.
7. FC Act shouldn't be applicable for accessing reservoir at 3-4 km depth using ERD technology.
8. Seismic Survey in ESZ/PA areas were permitted earlier but, in some cases, survey isn't permitted at the present.
9. WL division to reinstate its guidelines dated 26.09.2014 which advises State Forest Directorate to not handle proposals for 10 Km ESZ areas, as Wildlife Protection Act, 1972 isn't applicable.
10. Oil & Gas E&P activities aren't to be prohibited in final site specific ESZ Notifications.
11. Separate form could also be introduced for proposals executed in 10 Km ESZ area and not using an equal Form used for proposals executed inside PAs.
12. North-Eastern States to think about for holding State Wildlife Board Meetings Quarterly so as to avoid delay in getting approval for the projects from SC-NBWL.

### IV. ENVIRONMENT RELATED MATTER

1. Rules and Regulations framed for exploration and development activities should vary and a few relaxations should tend in the case of exploration, since the activity is only temporary in nature.
2. Condition like making approach road to be made pucca to attenuate generation of suspended dust might not be necessary in the case of exploratory drilling, since the activity is only temporary in nature. This condition could also be imposed just for development drilling.
3. Monitoring for Corporate Social Responsibility activities administered by projects could also be entrusted to concerned Government Department like Social Welfare Department.