

Item No. 1

Court No. 1

**BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI**

(By Video Conferencing)

Original Application No. 43/2020(EZ)

Bonani Kakkar

Applicant

Versus

Oil India Limited & Ors.

Respondent(s)

Date of hearing: 15.02.2021

Date of uploading the order: 19.02.2021

**CORAM: HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON
HON'BLE MR. JUSTICE SHEO KUMAR SINGH, JUDICIAL MEMBER
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER**

ORDER

1. **The issue** for consideration in these matters is the remedial steps for restoration of the environment and compensation to the victims on account of damage resulting from the incident of **oil blowout** on 27.05.2020 from the oil well belonging to the Oil India Limited (OIL) which released huge amount of toxic gases and, other consequential events, including fire incident 09.06.2020 that followed, at Baghjan in Tinsukia District of Assam. The fire was finally put off on 15.11.2020, after almost six months and well killing operations were successfully completed on 03.12.2020, after six months, as per version of the OIL filed before this Tribunal on 16.12.2020. Adverse impact of the incident on human beings and environment was large. **As per affidavit dated 27.07.2020 filed by the OIL, more than 9000 persons were displaced and sheltered in 12 relief camps, (with 750 persons in each), 10 camps immediately after 27.05.2020 incident and 02 camps added after 09.06.2020 incident. As on 22.07.2020, 07 camps were still continuing with 5758**

occupants. 3000 affected families were paid Rs. 30,000/- each as one-time compensation, apart from the compensation of Rs. 20 lakhs each to 11 families whose houses were burnt. A sum of Rs. 11.17 crores was spent on the relief camps as on 23.07.2020. According to the OIL, more than Rs. 151 crores was required towards operational cost for controlling the blowout. By a subsequent letter dated 02.12.2020, the OIL has accepted its liability to pay Rs. 68.05 cores further amount to 600 affected families (Rs. 15 lakhs each to 161 families where damage to the houses is total and Rs. 10 lakhs each to 439 families where damage to the houses is severe). OIL has proposed to the District Collector, Tinsukia that it will pay compensation of Rs. 50,000/- each to 612 families who have left the camp for rental, accommodation, food and other facilities, as stated in the report dated 10.12.2020 of the Committee appointed by this Tribunal (paras 4 and 5). A sum of Rs. 90.796 crore stands deposited by the OIL with the District Collector.

2. **The Tribunal considered the matter first on 24.06.2020** and noted the version of the applicants that blowout resulted in damage to bamboo groves, tea gardens, banana trees and betel nut trees in the area and also spread into the Dibru-Saikhowa National Park which, according to the Applicant, records over 40 mammals, 500 species of birds, 104 fish species, 105 butterfly species and 680 types of plants including a wide variety of rare orchids. The area harbours tiger, elephant, wild buffalo, leopard, hoolock gibbon, capped langur, slow loris, Gangetic dolphin, besides critically endangered bird species such as the Bengal Florican, White Winged Duck, Greater Adjutant stork, White rumped vulture, slender billed vulture as well as the rare and endemic Black-breasted parrotbill. The oil also spilled into the Dibru river causing a film of oil in

the river that passes through the Maguri-Motapung wetlands, an Important Bird and Biodiversity Area, and along the Dibru Saikhowa National Park. The Maguri-Motapung Wetland, located less than 10 km from Dibru-Saikhowa National Park, is a part of the Dibru-Saikhowa Biosphere Reserve (DSBR) and hosts some of the most vulnerable species of birds such as Swamp Francolin, Marsh Babbler, Greater Adjutant and Pallas's Fish-eagle, Red-headed Vulture and White-bellied Heron, and over 80 species of fish. River Dibru is a tributary of River Lohit which then forms river Brahmaputra in the lower reaches. Brahmaputra river system is also a home to Gangetic dolphins. As a result of the blowout, there was also a fire on 09.06.2020. The applicant has also stated that the blowout has left behind huge volumes of residue as gas condensate which is a mixture of chemical compounds that are toxic for land and vegetation and is a known carcinogen. The blowout is not only hazardous to the health of the people but also severely affect their livelihood whose occupation is mainly agriculture, fishing and animal rearing. **1610 families were displaced as a result of the gas leak.**

3. With a view to obtain an authentic independent version, while issuing notice to the OIL, **the Tribunal constituted eight-member Committee headed by a former Judge of Gauhati High Court with representatives from CPCB, CSIR, Guwahati University, State Biodiversity Board, ONGCL, State PCB and the District Magistrate, Tinsukia District** with liberty to the Committee to co-opt any other expert or institution. The mandate of the Committee was **to ascertain the cause of the incident, persons responsible for the incident and for the failure to prevent the same, extent of damage to the human life, wildlife, Dibru-Saikhowa National Park (DSNP), the Maguri-Motapung Wetland (MMW), assessment of proposed compensation to the victims**

and for restitution of the property and the environment, remedial measures, including steps to prevent recurrence.

Other Recent Industrial accidents causing deaths/injuries/environment damage

4. The Tribunal has in the recent past come across several cases of industrial accidents¹, mostly on account of deficiency in following safety

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- i. Order dated 01.06.2020, relating to incident of gas leak dated 07.05.2020 in **LG Polymers India Pvt. Limited** at Vishakhapatnam, resulting in death of 11 persons and injuries to more than 100, apart from other damage (OA No. 73/2020, In re: Gas Leak at LG Polymers Chemical Plant in RR Venkatapuram Village Visakhapatnam in Andhra Pradesh);
- ii. Order dated 03.02.2021, relating to incident dated 03.06.2020 in a chemical factory, **Yashyashvi Rasayan Pvt. Ltd.** at Dahej, District Bharuch, Gujarat resulting in deaths and injuries and other damage (OA No. 85/2020) (Earlier OA 22/2020) (WZ), Aryavart Foundation through its President vs. Yashyashvi Rasayan Pvt. Ltd. & Anr.);
- iii. Orders dated 06.07.2020 and 22.12.2020, relating to incident dated 30.06.2020 on account of gas leakage at **Sainor Life Sciences** factory at Parawada in industrial area on the outskirts of Vishakhapatnam (OA No. 106/2020, News item published in the local daily "Economic Times" dated 30.06.2020 titled "Another Gas Leakage at Vizag Factory kills two, critically injures four...");
- iv. Orders dated 08.07.2020 and 22.12.2020, dealing with the incident dated 01.07.2020 resulting in death of 6 person and injury to 17 due to blast of boiler in **M/s Neyveli Thermal Power Station** (NLCIL), Cuddalore (OA No. 108/2020, News item published in the "Indian Express" dated 01.07.2020 titled "Tamil Nadu Neyveli boiler blast: 6 dead, 17 injured") and;
- v. Orders dated 23.07.2020 and 22.12.2020, in relation to incident of **fire engulfed the chemical plant of Visakha Solvents Ltd**, Vizag on 13.07.2020 at Ramky CETP Solvents building in Pharma City resulting in injuries (OA No. 134/2020, News item published on 13.07.2020 in the local daily named "India Today" titled "Massive fire engulf Vizag chemical plant, explosions heard, injuries reported").
- vi. Order **dated 18.12.2020**, in relation to incident of **explosion in a plastic recycling factory at Sujapur in Malda on 1.12.2020** resulting in death of six persons, including two minors and serious injuries to four persons (OA No. 272/2020, News item published in the "Times of India" dated 20.11.2020 entitled "Six killed as blast tears through Malda Plastic recycling factory").
- vii. Order dated **18.12.2020**, in relation to incident of **methane gas leak in a sugar factory** called Lokenete Bapurao Patil Agro Industries Ltd. in Mohol Taluka of Solapur District, Maharashtra on 21.11.2020 resulting in deaths and injuries and other damage (OA No. 274/2020, News item published in the "Indian Express" dated 23.11.2020 entitled "Maharashtra: Two Killed, eight injured in methane gas leak in sugar factory").
- viii. Order dated 08.01.2021, in relation **to Gas Leak in Agro Company** (O.A No. 107/2020, In RE: News item published in the local daily "Indian Express Sunday Express" dated 28.06.2020 titled "Gas Leak in Agro Company Claims life of one")
- ix. Order dated 18.01.2021, in relation to News item published in Navbharat Times dated 24.12.2020 titled "**Gas leaks in IFFCO Plant, 2 Officers dead**" (O.A No. 04/2020, In re : News item published in Navbharat Times dated 24.12.2020 titled "Gas leaks in IFFCO Plant, 2 Officers dead")
- x. Order dated **11.02.2021**, in relation to accident of **toxic gas leak in Rourkela Steel Plant in Orissa**" (O.A. No. 09/2021, In re: News item published in The Indian Express dated 07.01.2021 titled "Four workers dead due to toxic gas leak in Rourkela Steel Plant")
- xi. Order dated **16.02.2021**, in relation to accident of **Virudhunagar firecracker factory blast** (O.A. No. 44/2021, In re: News item published in The News Indian Express dated 12.02.2021 titled "At least 19 dead in Virudhunagar firecracker factory blast, more than 30 injured")

protocols. The Tribunal, after securing factual reports has directed payment of compensation to the victims and taking of steps for restoration of environment, safety audits of establishments and measures to prevent recurrence. The present matter is also being handled on same pattern to the extent applicable to the facts.

Preliminary report of the Committee dated 24.6.2020

5. In pursuance of order dated 24.6.2020, which was slightly modified vide order dated 2.7.2020, the Committee gave its interim report dated 24.07.2020 to the effect that **there was failure of following the Standard Operating Procedures (SOPs) in operating the Blow Out Preventer (BOP), without testing secondary safety barrier and lack of proper supervision of the contractor as well as of the Company. The Company had not obtained requisite consents nor complied with the EC conditions which called for remedial action.** The Committee suggested preventive measures to avoid similar incidents in the form of **isolation of hydro carbon bearing zone, placement of secondary safety barrier, placement of cement plug, proper cement slurry design and preparation of contingency plan.** Damage to the DSNP and MMW was required to be assessed by setting up multi-disciplinary teams. Same course was required to be adopted for restoration plans. The Committee recommended scale of interim compensation in three categories of Rs. 25 lakhs, Rs. 10 lakhs and Rs. 2.5 lakhs to persons whose houses were completely demolished, severely damaged and partially damaged respectively.

6. According to **version of the OIL in the form of objections filed on 05.08.2020**, the contractor to execute the Work Over Operations as per well programme was M/s John Energy Limited (JEL). Installation manager

was the link between OIL and JEL. The contractor was to control and the prevent fire blowout. **The contractor nipped down BOP before completion of WOC period of 48 hours and gave that information only when the well became active. JEL did not inform nipping down of BOP and did not shut the well for control. Thus, failure was of Contractor and not OIL.** The OIL engaged Environment Resource Management (ERM) to assess damage to the biodiversity. Other organizations hired for study of impact on blowout are: The Energy Research Institute (TERI), Assam Agricultural University, CSIR-North East Institute of Science and Technology and Indian Institute of Technology (IIT), Guwahati. **Thus, restoration work is being undertaken. It had secured requisite consents and complied with the statutory norms.** State PCB issued closure notice on 19.06.2020 which was withdrawn on 23.06.2020 after considering the stand of the OIL. **It has discharged its responsibility of compensating the victims and the environment by taking necessary remedial measures.**

7. We reproduce below the extracts from the preliminary report of the Committee dated 24.07.2020:

“Based on the preliminary assessment, the Committee has arrived the following preliminary findings, which are subject to further consideration by the Committee. In the interim, the Committee is also of the unanimous view that the well Baghjan-5 blowout and subsequent explosion has led to extensive damage to both the publicly owned resources including the Maguri-Motapung wetland, DSNP, the eco sensitive zone including the water bodies, air, wildlife and the natural resources surrounding it. Additionally, it has caused irreparable physical harm and damage to privately owned property of the survivors in the affected villages. The Committee therefore concludes the preliminary report with suggested interim measure including compensation for the affected families and individuals.

Preliminary Inferences

I. *The probable reasons of Well Baghjan-5 blowout and explosion are as under:*

- a. *There was deficiency in understanding of the gravity of a critical operation like removal of BOP without having a confirmed and tested secondary safety barrier.*
- b. *There was deficiency in proper planning of critical operations. There was a clear mismatch between planning and its execution at site and deviations from the Standard Operating Procedure.*
- c. *There were serious deficiencies of proper level of supervision of critical operation at the well site both from the Contractor as well as from OIL.*

II. *OIL did not have the mandatory Consent to Establish and Consent to Operate both under the Section 25 & 26 of the Water (Prevention & Control of Pollution) Act, 1974, under Section 21 of the Air (Prevention & Control of Pollution) Act and the Rules framed thereunder, when it first started its drilling operations in Well Baghjan-5 in 2006.*

III. *On the day of the blowout of Well Baghjan-5 i.e. 27.05.2020 and subsequent explosion on 09.06.2020, OIL did not have the mandatory Consent to Establish and Consent to Operate both under Section 25 & 26 of the Water (Prevention & Control of Pollution) Act, 1974, under Section 21 of the Air (Prevention & Control of Pollution) Act and the Rules framed thereunder and/or the authorization Rule 6 of the Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2016.*

VI. *OIL, till date, does not have the required Consent to Establish and/or Consent to Operate to either carry out drilling and testing of hydrocarbons in Well Baghjan-5 under the DSNP Area, except for the years 2008-09, 2012-13, 2018-19, under Section 25 & 26 of the Water (Prevention & Control of Pollution) Act, 1974, under Section 21 of the Air (Prevention & Control of Pollution) Act and the Rules framed thereunder and/or the authorization required Rule 6 of the Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2016 which is in clear violation of the conditions stipulated in the Environmental Clearance dated 11.05.2020.*

Preliminary Interim Measures

I. Immediate Preventive Measures to Avoid Similar Blowout and Explosions

- (i) *It is pertinent to note that the handling of Gas wells is different than Oil wells. Therefore, it is necessary to have different SOP for Gas wells.*
- (ii) *Isolation of any Hydrocarbon bearing Zone by a secondary barrier is critical and ought to be planned carefully. Such well situation cannot be relied upon only on Hydrostatic Head of well Fluid. There ought to be proper secondary safety barrier, which are tested both positively and negatively to check its integrity before attending any critical operation in the well like nipple down of BOP.*

- (iii) *Placement of secondary safety barrier must be placed as near to the perforated zone and should not place anywhere in the well.*
- (iv) *Placement of Cement Plug is to be always done in the vertical portion of Casing. If required to place Cement Plug in a deviated well, either a perforated Tubing/ Drill pipe shoe is to be used and the string ought to be rotated during placement of cement slurry by using swivel joint or use the swivel joint with Kelly of the Rig. After balancing the Plug, the string needs to be pulled out slowly and while breaking the joints, Rotary is to be used to break the joint which will help cement slurry to spill all around and also to fall smoothly from inside string.*
- (v) *It is important to design Cement Slurry with water loss additive to control water loss from cement slurry to bare minimum during setting of cement. Retarder may also be added to get the desired thickening time. Compressive Strength of the designed slurry are to be tested at 12hours, 24 hours and 36 hours.*
- (vi) *Before doing any critical operation in well, a comprehensive contingency Plan must be made available to face any eventuality. In this particular well due to not having any such Plan.*

II. Restoration Plan for Maguri-Motapung Wetland

1. **The Committee is of the unanimous view, that it is necessary to set up/induct a multidisciplinary team comprising of community members along with experts on wetland ecology, hydrology, fisheries, water birds' specialists and others who will report to the Committee and will be responsible to formulate a restoration plan for the Maguri-Motapung wetland and also to ascertain the extent of damages and the compensation to be fixed for that purpose.** The Committee, in its subsequent report shall make necessary recommendations for payment of compensation by the Pollutor for restoration of the damages caused to the eco-system.

III. Health Safeguards in Relief Camps

1. *It is specifically recommended that regular screening for COVID is conducted and as and when necessary. It is further recommended that adequate number of relief camps with adequate health and sanitation facilities be set up by the Office of the District Administration together with OIL, in conformity with the COVID-19 guidelines issued by the WHO, Government of India and Government of Assam. Furthermore, it is specifically recommended that all individuals presently being accommodated in the relief camps be provided with immediate health safeguards, including insurance cover for COVID 19.*

IV. Interim Compensation to the affected families

1. **The Committee, proposes the formulation of three categories of affected families to assess the question of interim compensation namely ;**

(i) **Those whose houses have been completely gutted by the fire thereby causing grave injury to life and health, loss of livelihood, cultivable land, livestock, damage to standing crops and horticulture, fisheries etc.**

(ii) **Those whose houses have been severely damaged thereby causing grave injury to life and health, loss of livelihood, cultivable land, livestock, damage to standing crops and horticulture, fisheries etc.**

(iii) **Those whose houses have been moderately/partially damaged or whose standing crops and horticulture have been partially damaged thereby causing injury to life and health, loss of livelihood, cultivable land, livestock, damaged to fisheries etc.**

(iv) **The scale of interim compensation is as follows :**

Category (i)	Rs. 25 Lacs
Category (ii)	Rs. 10 Lacs
Category (iii)	Rs. 2.5 Lacs

2. *An initial amount of Rs.25 Lacs will be released immediately to all the affected under category (i) whose information is already available with the Office of the District Administration. For the affected families under category, (ii) the amount of 10 lacs will be released immediately within an outer limit of 15 days, based on the information already available with the Office of the District Administration. The compensation amount, if any already paid, shall be deducted from the aforesaid amount of interim compensation.*

3. *The Office of the District Administration will compile a list of all those in Category (iii), who have been moderately / partially impacted, in consultation with the revenue officers, PWD, concerned circle officer, the Gaonburahs and community representatives of the affected villages. The disbursement of the amount will be completed expeditiously within an outer limit of 45 days from the passing of the order by the Hon'ble NGT for interim compensation.*

4. *The affected families, particularly under category (i) and (ii), whose names have been left out of the list would be entitled to the said amount after due verification within 7 days from the passing of the order by the Hon'ble NGT for interim compensation and the same will be disbursed within 15 days from the date of completion of the verification.*

5. *The interim compensation will be paid by OIL and from the funds which have already been made available to the Office of the District Administration. The balance amount, if any, will be made available immediately by OIL and as and when asked by the Office of the District Administration.*

6. *One-time compensation amounting to Rs.30,000/- that has been agreed to be paid by OIL to the affected families, who had moved to the relief camps due to Well Baghjan-5 blowout on 27.05.2020, as an immediate relief, will be disbursed immediately as per the list prepared by the circle officer, Doomdooma and available with the Office of the District Administration and not later than 7 days from the passing of the order by the Hon'ble NGT for interim compensation. The affected families whose names have been left out of the list would be entitled to the said amount after due verification and the same will be disbursed within 15 days from the passing of the order by the Hon'ble NGT for interim compensation.*

7. *One-time compensation of Rs.25,000/- will be disbursed to each of the affected families and individuals who had shifted to the relief camps in the wake of the explosion in Well Baghjan-5 on 09.06.2020 as an immediate relief as per the list prepared by the Circle officer, Doomdooma and available with the Office of the District Administration and not later than 7 days from the passing of the order by the Hon'ble NGT for interim compensation. The affected families whose names have been left out of the list would be entitled to the said amount after due verification and the same will be disbursed within 15 days from the passing of the order by the Hon'ble NGT for interim compensation.*

8. *The interim compensation as well as the one time compensation, as stated above, will be credited directly to the bank accounts of the affected families and individuals by the Office of the District Administration. The said interim compensation is non-recoverable and will be adjusted against the final compensation due to the affected families and individuals.*

9. *An immediate health insurance policy including COVID 19 will be made available by OIL to all affected individuals and families by the Well Baghjan-5 blowout and explosion and who are presently taking shelter in the relief camps within 7 days from the passing of the order by the Hon'ble NGT for interim compensation.”*

8. We now reproduce extracts from the objections dated 27.07.2020 filed on 12.02.2021 by the OIL to the above report:

“9. *That it is pertinent to mention that Baghjan Field is located at a distance of approximately 70 KM from Digboi, Eastern Asset Field Office and Field Headquarters (FHQ), Duliajan. Baghjan is one of the main hydrocarbon producing fields within OIL India Ltd's operational area in Assam. Consequent upon the successful commercial discovery of crude oil at Location-TP (BGN#2) exploitation of hydrocarbon from the field was started from the year 2005. As the field was found to be highly prolific in nature, an Early Production Setup (EPS) was constructed in*

year 2008 at the plinth of Location-TP for handling the produced crude. The EPS is designed for handling capacity of 2700 Kilo Liters Per Day (KLPD). So far, 31 Nos. of wells have been drilled in Baghjan Oilfield including 3 Water disposal wells. Out of which 21 wells are on regular production in Baghjan EPS. It is pertinent to mention herein that total of 31 wells were drilled including 3 wells as water disposal wells as on date. Out of the 28 wells drilled for hydrocarbon prospects, 05 wells including BGN#05 were completed as Gas wells and the remaining 23 wells were completed as OIL India Ltd wells. Currently out of these 28 wells, 05 wells are temporarily shut-in and 01 well is permanently abandoned. As such, prior to workover of BGN#5, 22 wells were on production. After blowout of BGN#5, 21 wells are in production with a total production of 1222 KLPD crude oil and approx. 1.77 MMSCMD natural gas.

10. The Baghjan Field has following infrastructure:

- i. Well plinths distributing 31 wells: 08
- ii. Flowline Indirect Heaters for flow assurance of produced hydrocarbons: 10
- iii. Production Installation (In full operation): 01
- iv. Compressor Station (BOO) to process LP Gas: 01
- v. VDP securities are deployed to guard Flowline Indirect Heaters
- vi. AISF Security to carryout round the clock patrolling of well plinths to avoid miscreant activities

Furthermore, produced formation water is disposed safely as per statutory guidelines in 03 Nos. of Water Disposal Wells (WDW). Moreover, an Effluent Treatment Plant (ETP) of 1000 Kilo Litter capacity is planned in the proposed FGGS.

11. That the Well BGN#5 was Producing 88000 SCMD of gas with 29 KLPD condensate from 3870 m Langpar sand since September 2015. Geology & Reservoir Department anticipated that further production may lead to fast depletion of the reservoir pressure of the gas cap of BHN001 Block resulting in lesser recovery. The workover operation at BGN#5 well was proposed and accordingly Rig: CH#9 of **M/s- John Energy Ltd** was deployed to carry out the workover operation. The workover operation was carried out from 25.04.2020 and the initial objective was completed on 18.05.2020 as per workover program. But after the perforation when the well was about to divert to oil collection station, pressure rose in the casing side due to leakage from tubing side. So, it was decided to kill/subdue the well and again recompleted with same tubing. While well killing/ subduing, a pressure was observed at outer casing which may have come from

inner casing through a spool called Well Finish spool (WF spool). After the well was subdued/ killed (Sodium Format Solution is infused to cap well pressure), tubing was pulling out of hole. In between the WF spool was tested and was found leakage. Then it was decided to change the WF spool. Prior to changing of WF spool, it was decided to put a secondary barrier as cement plug of 100m in the Well. Accordingly, a program was made to carry out cement plug job as per the program on 26.05.2020. On 27.05.2020, the Operation for change of WF spool was taken up. However, the Well suddenly became very active and has resulted into a major blowout at around 10.30 AM, while workover operation was on, under service Contract by M/s John Energy Limited, Ahmedabad, Gujarat. However, there was no incident of any fire/injury/causality. District Authorities were immediately informed about the incident and were also requested for support including support for addressing any law and order situation that could arise.

12. That in pursuance thereof, Crisis Management Team (CMT)

members from ONGCL and an Expert Team from ONGCL, Vadodara, approached the well head taking all precautionary measures and opened the casing valve and started pumping water through the casing valve. Water is being pumped continuously through the valve into the Well head. In addition to that 7-8 nos. water monitor was placed for spraying of water through fire pump continuously to the cool wellhead. Besides, following arrangements were made to bring the well under control

- ▶ *Creation of facilities for pumping water to the blowing well.*
- ▶ *Infrastructure arrangement for capping the well.*
- ▶ *Pumping of sufficient water through the well annulus to make the flowing gas wet, thereby reducing gas condensate spread to the nearby areas.*
- ▶ *Adequate water spraying through Fire Service pumps and nozzles/ monitors.*
- ▶ *Taking all adequate HSE measures.*
- ▶ *Continuous gas testing for LEL level around the well plinth area.*
- ▶ *Fabricate hydraulically operated mechanized structure at OIL's workshop for moving/placing Blow out Preventer (BOP) on the well head. The mock drill of the unit was done on 08.06.2020 at OIL's workshop.*

In the meantime, OIL India Ltd has also contacted Global Expert to control the blowout. Accordingly, OIL India Ltd appointed 3 Global Experts in Well Control Operation from M/s Alert Disaster Control (Asia) Pte Ltd, Singapore and is working at the blow-out site since 08.06.2020.

13. *That, unfortunately, the Blowout well caught fire at around 01.14 PM on 09.06.2020. That, after the Blowout Well caught fire at around 1.14 PM of 09.06.2020, the Experts' team from M/s ALERT, Singapore assessed the condition of the well at site in presence OIL India Ltd's team led by Directors of OIL India Ltd and ONGC CMT team. Immediately after the fire, there were violent protests around the well site by local villagers. Violent mob gathered around the site and threatened the Operating Personnel at site. Some vehicles were damaged. After receiving the information of the incident, DC and SP- Tinsukia District immediately rushed to the site along with Police Force.*
14. *That consequent upon the fire, Respondent Company along with the experts from ONGC and ALERT Team chalked out a new plan of action for controlling the well under fire. Important action plan to extinguish & control the well are as under:*
- ▶ *Heat shielding of the working areas by suitable means.*
 - ▶ *To clear all debris and damaged rig package & equipment from site.*
 - ▶ *Arrange water (4000 - 5000 GPM) and pumping infrastructure. Additional pumps are to be brought from ONGCL, Vadodara.*
 - ▶ *Arrange adequate drilling mud and pumping infrastructure. Hired pumping units of M/s Schlumberger are mobilized from Barmer and Kakinada.*
 - ▶ *Special tools and equipment's used for controlling wells under fire are being mobilized from various sources nationally and internationally.*
 - ▶ *Arranging to cap the well by placing BOP with the help of special tools (Athey wagon) after creating a continuous water umbrella.*
 - ▶ *Subdue the well by pumping drilling mud & kill the well immediately.*
 - ▶ *Bring the well under control.*

Above operations are being carried out under the direct instruction & supervision of the international well control expert from M/s ALERT Disaster Control (Asia) Pte Ltd, Singapore. However, incremental weather and flooding of the site on account of continuous rains for the last one month, besides obstructions by local people, have severely affected the pace of well control arrangements. However, inspite of various constraints, all efforts are being made to extinguish the fire and control the well in shortest possible time. Accordingly, final preparations for operation to cap the well have already been started.

15. *That around one thousand six hundred and ten (1610) families have been evacuated from the nearby affected*

areas and are camped initially in four relief camps set up at (i) Baghjan Dighultarrang L P School. (ii) St. Joseph School - Baghjan Tea Estate and (iii) Gateline LP School, Dighultarrang, iv) No.1 Baghjan Gaon L P School. All necessary supports for stay, food (including baby food), water, toilets, electricity and medical and veterinary care have been provided at the relief camps with support from District Administration and local organizations.

- 16. That in the meantime, different committees have been constituted by various statutory authorities and government bodies to enquire into the incident, having different scope of enquiry. The details of committees are enumerated below:**
- i) One Person Enquiry Committee headed by the Addl Chief Secretary, Govt of Assam vide Order No. HMA/19/50//2020-Pol(A)/4 dated 12.06.2020. A copy of the order dated 12.06.2020 numbered as HMA/19/50//2020-Pol(A)/4 is being annexed herewith and marked as Annexure 5.**
 - ii) Three member High Level Expert Committee constituted by the Ministry of Petroleum and Natural Gas, Govt of India, comprising of Director General Hydrocarbon, Govt of India, Former Chairman ONGC and Former Director, ONGC vide Order No. Expl-15022(13)/7/2020-ONG-V dated 11.06.2020. A copy of the order dated 11.06.2020 numbered as Expl-15022(13)/7/2020-ONG-V is being annexed herewith and marked as Annexure 6.**
 - iii) Four member expert committee constituted by the Directorate of Geology and Mining, Govt of Assam vide Order No. GM/MM/160/Pte.L/95 dated 04.06.2020. A copy of the order dated 04.06.2020 numbered as GM/MM/160/Pte.L/95 is being annexed herewith and marked as Annexure 7.**
 - iv) One member Expert Committee headed by the Addl PCCF(WL&CWLW) constituted by Environment & Forest Department, Govt. of Assam vide Order No. FRW.6/2020/1 dated 12.06.2020. A copy of the order dated 12.06.2020 numbered as FRW.6/2020/1 is being annexed herewith and marked as Annexure 8**
 - v) Two member expert Committee constituted by the Oil Industry Safety Directorate (OISD) under the MoPNG, Govt of India vide e-mail dated 30.05.2020. It is pertinent to mention herein that OISD is a technical Directorate under the Ministry of Petroleum and Natural Gas that formulates and coordinates the implementation of a series of self regulatory measures aimed at enhancing the safety in the oil & gas industry in India. The main objectives of the OISD are Standardization, Formulation of Disaster Management Plan, Accident Analysis and Evaluation of Safety Performance. A copy of the email dated 30.05.2020 by of Oil Industry Safety Directorate**

(OISD) is being annexed herewith and marked as Annexure 9. It is also relevant to mention that the Mines Act, 1952 empowers the Director General Mines Safety (DGMS) to investigate such incident and accordingly, DGMS has initiated investigation on the matter.

vi) Enquiry conducted by the Directorate General of Mines Safety (DGMS), Govt of India under the Mines Act, 1952. Further to above, on the request of the Respondent Company, Assam Agriculture University, Jorhat vide letter no. 7(15/13/DRA(T)/Pt/2020-21/2381 dated 17.06.2020 constituted a three-member expert committee to assess the damage of crop/Tree/Plants (Paddy/Tea/Fruit/Vegetation) in and around the blow out site. A copy of the letter dated 17.06.2020 numbered as (15/13/DRA(T)/Pt/2020-21/2381 is being annexed herewith and marked as Annexure 10.

17. That in the said incident, Two Fire Service Personnel of OIL India Ltd unfortunately lost their lives by drowning in the nearby ponds. After the postmortem, the dead bodies of the two employees of OIL, who valiantly sacrificed their lives on duty for the Company, were received with full honour in Duliajan. CMD and Director (HR&BD) paid homage in presence of other OIL employees. CMD, OIL India Ltd and Director (HR&BD), OIL India Ltd handed over cheque of Rs 30.00 Lakh each to the wives of the deceased fire-fighters, Late Tikheswar Gohain and Late Durluv Gogoi of OIL India Ltd under the Company's social security scheme on 15th June, 2020 at their residences in Duliajan. In addition, it has been announced that one of the eligible dependents of each of the two families shall be offered employment with OIL India Ltd on compassionate ground. Affected people in the surrounding areas are accommodated in 12 relief camps with the help of District Administration and arrangement for food and other basic needs have been made. Police Personnel are deployed by the District Administration for maintaining law & order situation at site and surrounding Drilling activities in few locations near Baghjan area have been suspended due to ongoing protest by local people.

18. xxxxxx.....xxx

19. That the OIL India Ltd submits that all Safety and security measures are continuously being monitored to protect surrounding villagers and their properties by the working teams. Protection of the environment would be paramount while carrying out the Well Control Operation. Efforts have been undertaken by OIL India Ltd by engaging, its own resources and hired services from organizations of national repute to minimize further impacts on the environment and to recuperate from the damage caused to the environment. Manually, picking

up of thin film of floating condensate oil was carried out by OIL India Ltd. Sorbents were used to contain the spread of condensate oil. The following organizations are involved for the purpose mentioned above, apart from the District Administration:-

- i) M/s ERM India Pvt Limited.**
- ii) The Energy Research Institute (TERI)**
- iii) Assam Agricultural University.**
- iv) CSIR- North East Institute of Science and Technology.**
- v) Indian Institute of Technology (IIT), Guwahati**

20. That, aforesaid organizations are presently carrying following jobs for restoration of the environment

- a) **Environmental Scanning:** OIL India Ltd engaged an National Accreditation Board for Education and Training (NABET) accredited consultant to carry out Environment Impact Assessment Study to examine impact on environment particularly air quality, noise quality, surface water, sediment quality, ground water, soil quality, terrestrial ecology, aquatic quality and to suggest mitigation measures.
- b) **Spillage, Cleaning and Bio-remediation:** M/s TERI, New Delhi has been engaged by OIL India Ltd for In-Situ & Ex-Situ bioremediation of oily Sludge/ oil-contaminated soil for a quantity of 6,000M³ was mobilized to the affected area on 06.06.2020. M/s TERI collected the sample microbial culture. M/s TERI inspected the spillage site and identified the areas of bioremediation in & around BGN#5, surrounding land mass and water bodies including Maguri-Motapung beel. On 19.06.2020, OIL India Ltd & M/s TERI representatives jointly identified and **certified the job volume as 12,000 m³**. M/s TERI initiated site cleaning jobs (collection/ cleaning of debris/ oil contamination in land as well as water bodies) after discussion with local villagers.
- c) **Picking up of spilled oil manually and by turbo pump:** After the incident of blowout, several bunds were constructed around the area of blowout to arrest the spilled oil flowing to the nearby water bodies. The oil arrested inside the bundhs were picked up by manual efforts in drums and transferred to EPS-Baghjan. Turbo pumps driven by water jet were also been used for lifting spilled oil.
- d) **Assessment of Contamination of Surface Water, Ground Water and Soil:** TERI/ERM would carry out an assessment of impact/ contamination to the surface water, ground water and soil in the affected area caused due to the blowout & fire. TERI would carry out water &

soil quality monitoring and appropriate modelling for the assessment of impact/ contamination

- e) **Assessment of Impact to Biodiversity:** TERI/ERM as well as the work assigned to Institute of Advance Study in Science and Technology (IASST), Govt of Assam, would carry out an assessment of impact/ damage to the biodiversity including the flora & wildlife in the affected area caused due to the blowout & fire.
- f) **Damage Assessment by Experts:** Assam Agriculture University (AAU) had deputed experts to assess damage to the Crops/Tree/Plants (Paddy/tea/Fruit/ Vegetation) in the area likely to be affected by the blow out and subsequent fire of BNG#5. The experts visited the area twice once after the blow out and once after the fire incident occurred on 09.06.2020.
- g) **Assessment of Vibration:** CSIR- North East Institute of Science and Technology (NEIST) had been requested to assess alleged vibration of the locality. Scientists from the premier institute have set up stations for the experimentation of the alleged vibration in the locality. The above activities are planned and are being executed by OIL India Ltd to mitigate the impacts on the environment due to the BGN#5 incident, if any.
- h) **IIT-Guwahati Study on Thermal Mapping & Sonic Measurement:** OIL India Ltd has engaged Indian Institute of Technology (IIT), Guwahati to study reported cracks in houses surrounding the blow out site using thermal mapping & Sonic Measurement. The study has been initiated on 1607.2020 in presence of officials from District Administration & PWD and Local Govt. Village Headman in Notungaon village.
- i) **Additional Efforts for the preservation of towards Dibru Saikhowa National Park:** OIL India Ltd restored 30-35ha lands by completing plantation of 64,500 trees by August, 2019 with aim of bringing back lands to its original conditions in abandoned well sites at seven locations.”

9. **The Tribunal considered the matter on 06.08.2020** as follows: -

“1to17...xxx.....xxx.....xxx

18. We have given due consideration to the objections. We are unable to accept the same at this stage for prima facie view and interim compensation. **The recommendations of the Committee on the subject of compensation for three categories of victims are accepted with the clarification that the compensation already paid will be taken into account and excluded from the interim compensation recommended by the Committee. Compensation to victims of categories (ii) and (iii) will be subject to**

identification by the District Administration which may be completed preferably within one month. We request the Assam State Legal Services Authority to oversee the process.

19. We also accept the recommendation for interim compensation to the families who have moved out of the relief camps after the blowout of 27.05.2020 and to the families who have shifted to the relief camps after explosion on 09.06.2020.

20. The disbursement may be made through the District Administration by deposit to the bank accounts of the affected families which may also be overseen by the State Legal Services Authority.

21. The amount calculated and quantified by the District Magistrate may be made available by the OIL within two weeks of letter of the District Magistrate.

22. Other interim recommendations may be complied to the extent there is no dispute, subject to call being taken by concerned statutory authorities and finally by this Tribunal on the next date.

The Committee may give its final report before the next date by e-mail at judicial-ngt@gov.in preferably in the form of searchable PDF/OCR Support PDF and not in the form of Image PDF."

Further reports of the Committee

10. Accordingly, the Committee has given its further report dated 10.12.2020, apart from its progress reports dated 31.10.2020 and 01.09.2020 (wrongly typed as 01.08.2020 at some places). We proceed to deal with the said reports dated 31.10.2020 and 10.12.2020 but since report dated 1.9.2020 is covered by report dated 31.10.2020, the same need not be referred to for purposes of this order.

11. Extracts from the report dated 31.10.2020 are as follows:-

"D. FINDINGS

I. INFRACTION OF ENVIRONMENTAL LAWS

(i) CONSENT TO ESTABLISH AND CONSENT TO OPERATE

(a) *Statutory obligations mandate that all onshore oil drilling projects adhere to strict compliance of obtaining consent under the provisions of the Water (Prevention & Control of Pollution) Act, 1974 (hereinafter referred to as the Water Act),*

the Air (Prevention & Control of Pollution) Act, 1981 (hereinafter referred to as the Air Act), and Authorization under the Hazardous Waste (Management & Handling) Rules, 1989 and the Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016.

(b) Based on a detailed analysis of records produced by OIL and PCBA with respect to the projects pertaining to the Well Bahjan-5, the preliminary report noted flagrant violations of the procedure envisaged under Section 25 and 26 of the Water Act and Section 21 of the Air Act and Rule 6 under the Hazardous Waste (Management & Handling) Rules, 1989. From the face of the records before the Committee, it became evident that;

i) OIL had never procured and/or received any Consent to Establish / NOC and / or Consent to Operate under the aforesaid Acts and Rules in the manner prescribed for drilling operation of Well Baghjan-5 in 2006. Infact, OIL had never obtained any mandatory authorizations as required under the Acts and Rules other than what is stated below.

ii) OIL only had the mandatory consent under the Water Act and Air Act was approved by PCB, Assam for the years 2008-09, 2012-13, 2018-19.

For the years 2006-07, 2009-10, 2010-11, 2011-12, 2013-14, 2014-15, 2015-16, 2016-17, 2017-18, 2019-20, no consent has been issued by the PCB, Assam as per the records placed before the Committee. Thus, OIL had flagrantly and consistently violated the provision under the Water Act and Air Act except for the 3 years i.e. 2008-09, 2012-13, 2018-19.

iii) Further, the PCB, Assam and OIL were not able to place any CTE/NOC and/or CTO for any year including the year 2020 and/or for the Well Baghjan-5. It was therefore inferred prima facie that on the day of the blowout of Well Baghjan-5 on 27.05.2020 and explosion on 09.06.2020, OIL did not have the mandatory consents including the CTE/NOC and/or the CTO under the Water Act, Air Act and/or the Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2016.

iv) Such omissions on the part of OIL meant clear violations not merely of the statutory mandate but also the conditions that have been stipulated under Clause 10 (iii) and (vi) of the Environment Clearance dated 11.05.2020 with respect to the Extension Drilling & Testing of Hydrocarbons at 7 locations under the DSNP Area, where the blowout and subsequent fire occurred with respect to Well Baghjan-5.

(c) Based on such findings, the Preliminary Report drew the following conclusion as stated below ;

... OIL does not have, till date, the required consent to establish and/or consent to operate to either carry out drilling and testing of hydrocarbons in Well Baghjan-5

under the DSNP Area, except for what has been stated in para 10 above. This indicates a serious and grave infraction against the statutory environmental safeguards, more particularly under Section 25 & 26 of the Water Act, Section 21 of the Air Act, the authorization under Rule 6 of the Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2016 and the Environmental Clearance dated 11.05.2020 for the said project. This may therefore require scrutiny of all existing projects of OIL in the State of Assam to ascertain if they meet the mandatory requirements of obtaining consent / authorization under the aforesaid Acts and Rules. It is recommended that the Hon 'ble NGT may also look into the activities of the PCB, Assam with regard to the grant of CTE / NOC and CTO for all the projects of OIL, presently in operation, in the State of Assam.

- (d) *Pursuant to such findings, the Committee sought further clarifications from PCB, Assam vide letter dated 18.08.2020, summoning all relevant documents pertaining to the status of the Consent to Establish and Consent to Operate under the aforesaid statutes pertaining to Well Baghjan No.5. In response vide their letter dated 21.09.2020, PCB, Assam placed a detailed summary chart titled "Consent Status of M/s Oil India Limited, Duliajan including Oil Well No. BGN-5 of Baghjan Oil Field in Tinsukia District" which is appended hereto as Appendix-A. A bare perusal of the document makes it clear that the mandatory authorizations/consent had been "not granted" except for the years of 2007-2008, 2008-2009, 2012-2013, 2014-2015, 2018-2019. It can therefore be concluded that OIL had not been granted the mandatory Consent to Operate for drilling operation of Well Baghjan-5 in 2006-07, 2009-10, 2010-11, 2011-12, 2013-14, 2015-16, 2016-17, 2017-18, 2019-20. The document, therefore, clearly supports the conclusions drawn in the preliminary report and establishes the fact that OIL does not have the mandatory authorizations 1.e. either the Consent to Establish / NOC and/or Consent to Operate under the Section 25 and 26 of the Water Act and Section 21 of the Air Act. Such omissions on the part of OIL amounts to a clear violation not merely of the statutory mandate, but also the conditions that have been stipulated under Clause 10 (111) and (vi) of the Environment Clearance dated 11.05.2020 with respect to the Extension Drilling & Testing of Hydrocarbons at 7 locations under the DSNP Area, where the blowout and subsequent fire occurred with respect to Well Baghjan-5 as has been indicated in the Preliminary Report.*
- (e) **The Committee therefore reiterates the conclusions drawn in the Preliminary Report and recommends that direction may be issued to the PCB, Assam to take appropriate legal action against OIL and its officials for violation of the mandatory requirements of the aforesaid Acts and the rules.**

(ii) COMPLIANCE OR OTHERWISE OF ORDERS OF THE HON'BLE SUPREME COURT

- (a) *As discussed in the Preliminary Report, the Hon'ble Supreme Court of India, vide an order dated 04.12.2006 in Goa Foundation vs. Union of India being W.P.(C) No. 460/2004, had mandated that under the Environment (Protection) Act, 1986, States should declare ecosensitive zones (ESZs) around the protected areas to keep a check on their fragmentation that may result from industrial development. Accordingly, mining and most polluting industries were prohibited in these zones. The Hon'ble Supreme Court further ordered that till the States do not identify such ESZs, all the projects that require environment clearance and are within 10 km of a protected area boundary, including mining, would be allowed only after getting an approval from the National Board of Wildlife (NBWL).*
- (b) *Pursuant thereto, the Hon'ble Supreme Court, vide its Order dated 07.09.2017, In R e T.N. Godavarman Vs. Union of India was pleased to relax the aforesaid prohibition in favour of OIL and granted conditional approval to OIL to undertake the present extraction of hydrocarbons from the proposed wells including the Well Baghjan-5. As evident from the Order dated 07.09.2017, the relaxation granted by the Hon'ble Supreme Court necessitated compliance by OIL of the conditions which inter-alia included:*
- i) OIL to carry out a Bio-diversity Impact Assessment study through Assam State Biodiversity Board, for which budgetary offer have already been obtained on 12.05.2017.*
- (c) *Based on the review of documents and records produced by both OIL and the Assam State Biodiversity Board, the Preliminary Report indicated a prima facie non-compliance vis-à-vis of conducting the Biodiversity Impact Assessment study as was mandated vide Clause 1 of the aforesaid Order passed by the Hon'ble Supreme Court. The observations read as under:*

Neither OIL nor the Assam State Biodiversity Board have presented any Biodiversity Impact Assessment study that was undertaken after 07.09.2017. To a specific request for submission of all expert committee reports pertaining to DSNP and its biodiversity, the Assam State Biodiversity Board clarified that such Reports, if any, were available only with the Wildlife Wing of the Assam Forest Department, which administers the DSNP and the biological diversity contained therein under the Wildlife Protection Act, 1972. The statement of the Assam State Biodiversity Board thus implies in clear terms that Assam State Biodiversity Board was not approached by OIL to carry out a Biodiversity Impact Assessment. In fact, OIL, in their reply to the Committee 's query has stated to have engaged the Institute of Advanced Study in Science & Technology to prepare Biodiversity Impact Assessment study. It is not clarified by OIL whether they had informed

the Hon 'ble Supreme Court before making such deviations. In any case, as on date, there appears to be no such Biodiversity Impact Assessment study, either prepared by the Assam State Biodiversity Board or any other agency engaged by OIL, on record, till date.

- (d) *Pursuant to the findings of the Preliminary Report, OIL vide its letter dated 19.08.2020 has informed the Committee that it had awarded a contract to carry out the Biodiversity Study to the Institute of Advanced Study in Science and Technology vide OIL letter ref no. OIL/CONT/LOA/S/594/2018-19 dated 20.11.2018 with necessary permission from the Principal Chief Conservator of Forests (Wildlife) and Chief Wildlife Warden, Government of Assam vide ref Order No. 54 dated 28.02.2020. OIL has further submitted that the Institute of Advanced Study in Science and Technology vide letter No.IASST/1316/2019-20/103 dated 27.04.2020 had expressed their inability to carry out the Biodiversity study. A copy of the letter dated 19.08.2020 submitted by OIL is attended hereto as Appendix-B.*
- (e) *The Assam State Biodiversity Board has also informed the Committee that pursuant to the order dated 07.09.2017 passed by the Hon'ble Supreme Court, the Board have not conducted Biodiversity Impact Assessment. They have also filed their affidavit dated 05.08.2020 before Hon'ble NGT, Eastern Zone Bench, Kolkata in Case No. 04/2020/EZ and IA No. 34/2020/EZ to the affect that though the board sent a budgetary offer of Rs. 21.23 lakh for conducting such study to the Joint Manager (HSE) and Nodal Officer Oil India Limited, Duliajan on 12.05.2017, the OIL did not communicate anything in that regard thereafter. A copy of the said communication dated 21.08.2020 and the affidavit dated 05.08.2020 are appended hereto as Appendix-C.*
- (f) *Further, it has not been made clear by OIL whether they had approached the Hon'ble Supreme Court of India to modify the said Order dated 07.09.2017 to the extent of having the Biodiversity Study conducted through the any other agency. The actions of OIL therefore stand in clear contravention of the directions of the Hon'ble Supreme Court granting conditional approval to OIL to undertake the present extraction of hydrocarbons from the proposed wells including the Well Baghjan-5.*
- (g) *Therefore, as on date, **OIL has been unable to carry out the Biodiversity Impact Assessment Study either through the Assam State Bio diversity Board, as was mandated by the Hon'ble Supreme Court, a fact that stands corroborated by the Assam State Biodiversity Board, or by any other agency. Such actions place OIL in continuing contempt of the directions passed by the Hon'ble Supreme Court of India, specifically its Order dated 07.09.2017 granting conditional approval to OIL to undertake the present extraction of hydrocarbons from the proposed wells including the Well Baghjan-5.***

(iii) ENVIRONMENT PROTECTION ACT, 1986

- a) *As observed in the Preliminary report, it was prima facie inferred that OIL did not have the necessary Environmental clearance (hereinafter referred to as the EC) for Baghjan Petroleum Mining Lease (PML) when it became operational in 2003 under the then Environment Impact Assessment (ETA) Notification, 1994. OIL has submitted three EC s pertaining to the Baghjan oilfield, the first of which is dated 01.11.2011. To a query raised by the Committee of whether OIL had received any EC from the Ministry of Environment, Forest and Climate Change prior to 01.11.2011, OIL has stated that the EC dated 01.11.2011 was the first obtained by OIL from the Ministry of Environment, Forest and Climate Change for which the application was submitted in 19.11.2007. It is a stated position by OIL that their operations in Well Baghjan-5 had first commenced on 20.11.2006. Since the submission of the Preliminary report OIL has not placed any additional document to indicate if the mandatory EC was indeed obtained when it became operational in 2003. This leads the Committee to state conclusively that OIL had started the activities in Well Baghjan-5, 5 years prior to grant of EC by the Ministry of Environment, Forest and Climate Change, Government of India, which is mandatory. The OIL therefore stands in contravention of the provisions of the Environment (Protection) Act, 1986 and the Environment Impact Assessment (EIA) Notification, 1994 under which it is mandatory to obtain EC for any onshore drilling projects before commencement of activities on 20.11.2006.*
- b) *Further, verification of the general and specific conditions as stipulated under the various ECs under the Environment (Protection) Act, 1986 and the EIA Notification 2006, indicate serious violations by OIL with respect to the projects pertaining to the Well Baghjan-5. In fact, the EC dated 11.05.2020 were subject to the strict compliance inter-alia of the following conditions that;*
- (i)
- (ii) *Drilling in the National park/Wildlife Sanctuaries are subject to the recommendations of orders of Hon 'ble Supreme Court, recommendations of Standing Committee of NBWL, recommendations of the State Chief Wildlife Warden and strict compliance of the conditions imposed therein.*
- (iii) *Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board.*
- (iv) *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans Boundary Movement) Rules, 2016, Solid Waste*

Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.

The discussion under Section D. I. (i) and D. II. (ii) above clearly indicate a serious noncompliance by OIL in adhering to the strict compliance as mandated under the EC dated 11.05.2020 and more specifically the environmental safeguards envisaged under the aforesaid Acts and Rules. Such omissions amount to a clear contravention of the statutory mandate and the conditions imposed thereon in granting approval and in continuing to carry out operations in extraction of hydrocarbons from the proposed wells including the Well Baghjan-5.

- c) The Committee has received multiple reports including those furnished by PCB, Assam and DC, Tinsukia. These reports provide a detailed record of the ambient noise level at different locations of the OIL blowout site at Baghjan at different time periods from the occurrence of the explosion on 09.06.2020 till date. These reports record a consistent increase in noise levels in and around the blowout site, with noticeable increase in sound beyond the prescribed standard irrespective of the zone. Initial reports of assessment made by the PCB, Assam dated 15.06.2020 indicate alarmingly high levels of ambient noise between 82.2 dB to 92.03 dB at a distance of 800- 200 meters respectively from the site of the OIL blowout. Infact, the noticeable increase in noise levels is evident from the report furnished by the PCB, Assam on 17.07.2020 which records ambient noise levels at 104 dB at a site located 50 meters from the Well Baghjan No. 5. Infact, ambient noise levels recorded on 07.10.2020 indicates continuing noise level recorded from a minimum of 94.3 dB to a maximum of 98.2 dB at sites within a 100-meter radius from the source. The reports of PCB, Assam and DC, Tinsukia are appended hereto as Appendix D Colly. The same stands corroborated by the Report furnished by TERI, as has been made available to the Committee by OIL, which notes as under:

....that the equivalent sound pressure levels (Leq) measured at 0.5. km from the well are exceeding the industrial noise level daytime standard of 75 dB (A) in all the monitored days except for few days.

The Noise Pollution (Regulation and Control) Rules, 2000 define the acceptable level of noise in different zones for both daytime and nighttime. In compliance with Rule 3 of the said Act, the area surrounding Well Baghjan No. 5 has been designated as both Industrial and Residential. The permissible limit for the area around Well Baghjan No. 5, as provided under the Schedule to the said Rules is stated to be as follows :

SCHEDULE

(see rule 3(1) and 4(1))

Ambient Air Quality Standards in respect of Noise

Area Code	Category of Area/Zone	Limits in dB(A) leq
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		Day Time	Night Time
(A)	Industrial area	75	70
(B)	Commercial area	65	55
(C)	Residential area	55	45
(D)	Silence Zone	50	40

Based on the Reports received by multiple agencies, including PCB, Assam, it is evident that the ambient noise levels in and around Well Baghjan No. 5 are well above the permissible standards. It is therefore recommended that OIL be directed to take immediate and all other urgent measures to bring down the noise level within the limit prescribed under Rule 3(1) and Rule 4(1) of the Noise Pollution (Regulation and Control) Rules, 2000. Additionally, PCB, Assam may be directed to initiate appropriate legal action against the competent authorities of OIL under the provision of Rule 8 of the aforementioned Rules. Further, in the interim, a health fund may be generated by contributions made available by OIL, to be administered by the DC, Tinsukia, to defray the cost of treatment including any specialized treatment of any person(s) suffering from any ailment/condition/ illness due to the heightened noise levels. Such fund may be replenished from time to time as may be deemed necessary and appropriate by the DC, Tinsukia, which is appended hereto as Appendix-D Colly.

- (iv) *Additionally, in this context, and as discussed in the Preliminary Report, the Committee seeks to draw attention to Letter No.B-29012/ESS (CPA) 2015-16 dated 07.03.2016 issued by the Central Pollution Control Board which classifies 'Oil and gas extraction including CBM (offshore & on-shore extraction through drilling wells' as Red Category industries and prohibits their operation in ecologically fragile areas/protected area. The aforesaid letter dated 07.03.2016 issued by the Central Pollution Control Board has been adopted by the State of Assam in the year 2019 vide Notification No. WG/G-1521/18-19/27 dated 04.05.2019. **Thus, the continuing extraction of hydrocarbons around the DSNP would qualify as a Red category project, having it been declared as an eco-sensitive zone (ESZ) and would place it in clear violation of the Notification No. WG/G-1521/18-19/27 dated 04.05.2019. Neither OIL nor PCBA have clarified their position before the Committee qua the inconsistency with the mandate given by the Central Pollution Control Board qua industries and extent of such non-compliance.***

II. HEALTH ASSESSMENT SURVEY :

- (i) *The Committee directed the Deputy Commissioner, Tinsukia to carry out the health survey in respect of the persons living in the nearby villages of Well No. 5 Baghjan and also of the*

livestock, through the Joint Director of Health Services, Govt. of Assam and District Animal Husbandry and Veterinary, Tinisukia, Govt. of Assam, respectively. Assessment relating to the effect on the fish ponds and fishermen due to the blowout incident through the District Fishery Department Officer, Tinisukia, Govt. of Assam was also directed to be made.

- (ii) *Pursuant to the said direction the process of conducting the health survey of persons effected and impact on livestock as well as the impact on fish pond and fisher man due to the blowout incident of Well No. 5 Baghjan is on and the final report in that regard is expected soon. Hence, final recommendation in that regard would made by the Committee in its next report.*

III. CULPABILITY OF OIL :

- i) *The Committee in the Preliminary Report dated 24.07.2020 apart from the others made the following observation :*

a) *Cause of the Accident I. After going through the replies received from OIL to the queries raised by the commit and having reviewed the DPR from 20.05- 27.05.2020, prima facie, the Committee could identify, pending further investigation, the following probable causes of the accident i.e. blowout of Well Baghjan-5.*

- i) *There was a flaw in the operational plan. The decision to place a Cement Plug at a depth of 1000 Mtr in an inclined portion of the well (26 to 27 degree) as a secondary safety barrier itself was flamed. The cement plug should have been placed as near to the perforated Zone and in this case near to the Packer i.e. about 100 Mtr above packer by placing a 100 Mtr Sand plug above Packer to protect Packer from cement cutting falling during cement drilling.*
- ii) (i) *Planned not to tag and test the Cement Plug was another flaw in the planning of Cement Plug job. It was planned to place 100 Mtr Plug but cement slurry surfaced during reverse circulation at a depth of 655 Mtr i.e. after pulled out of D/P by about 340 Mtr. Probably nobody read the cement plug job execution report of 27.05.2020. In such a situation, Plug should not only have been tagged and tested but also negatively tested to check its integrity of purpose as safety barrier before nipple down of BOP. This was a mandatory requirement as per the Standard Operating Procedure.*
- iii) *Moreover, when the cement slurry starts to set, slurry loses water and static gel develops. At this time, cement column would behave like water column and reduced Hydrostatic Head. Secondly, in static condition of gas well i.e. WOC time when well fluid was static, gas bubble enters slowly from the perforated zone and gas bubbles percolated up, and expanded and burst at*

surface. This process continued in static condition of well at a faster rate being well fluid was brine. Same phenomenon would have been little slow in case of viscous fluid like mud. But in the process, Sp gravity of fluid in the well was reduced slowly. In this well as cement plug was placed much above the perforated zone i.e. nearly 2700 Mtr. As a result, gas bubbles diluted a long column of brine solution in the well and so there was reduction of Hydrostatic Head of brine solution which was just above formation pressure of the perforated gas zone. The combination of gas bubble phenomenon and reduction of head due to long contaminated cement plug resulted reduction of Hydrostatic head in the well after 13-14 Hours of WOC and well became active. And as there was no tested secondary safety barrier in the well after removal of BOP, well slowly started flowing and within one and half hour or so final blowout of the Well Baghjan-5 took place. This is therefore, a reason to place cement Plug near to the perforated Gas Zone to work as secondary safety barrier.

iv) Against one of the queries raised by the Committee as to why it was not planned to set retrievable Bridge Plug (RBG) as a safety barrier in place of Cement Plug, OIL replied that use of Retrievable Bridge Plug is not in practice in OIL. The Committee found this to be surprising. SLB logging contract with OIL is in place, only needed a provision in contract to use Retrievable Bridge Plug as and when required basis. Such standard provisions in ONGC contract with SLB are there with well logging contract to utilize such services as and when required. Moreover, ONGC departmental Production Team also does this type of job departmentally. Setting of Retrievable Bridge Plug to isolate the Gas zone would have been more convenient and also time saving.

v) In the plan of cement plug job, it was mentioned WOC as 48 Hours. But in actual D/P were pulled out of casing after 12 hours of WOC and BOP was removed from well head after 15 Hours of WOC. This was a gross violation of written instructions of WOC of 48 Hours in the Plan. It is very hard to believe that Contractor Driller would act on his own to remove BOP after 15 hours of WOC against a written instruction of WOC of 48 hours unless Driller gets some instruction in writing or telephonically from someone from OIL.

1. From above discussions, it seems that Planning group and Execution team of OIL did not take the Cement Plug Job very seriously though it was placed as a secondary safety barrier before nipple down of BOP.

Probably, the planning group relied mostly on primary safety barrier i.e. hydrostatic head of well fluid which was sufficient to stop any activity and cement plug was just an additional barrier, even though it failed would not matter. Therefore, it

was first decided by Planning Group to place the plug at a shallower depth inside the casing, testing of the plug to check its integrity was not planned considering it was not necessary. While execution of cement plug job also nobody bothered to watch how it was placed, cement slurry channeled and rose much more height than planned and cement slurry design for this plug job was also faulty. Only cement additive Retarder was used to give longer IST without control of water loss from cement slurry after placement. Vital parameter of Compressive strength was also not measured at BHCT (Bottom Hole Circulating Temperature) of 46 degree centigrade at plug depth of 1000 MT. So plug strength was not known.

2. So, in summary we find following probable reasons of this blowout :

- i) There was deficiency in understanding of the gravity of a critical operation like removal of BOP without having a confirmed and tested secondary safety barrier.
- ii) There was deficiency in proper planning of critical operations. There was a clear mismatch between Planning and its Execution at site and deviations from the Standard Operating Procedure (SOP).
- iii) There were serious deficiencies of proper level of supervision of critical operation at well site both from the Contractor as well as from OIL.

b) Fixation of Responsibility for the Accident

1) The Committee has undertaken a preliminary investigation of the various activities that happened in the Well Baghjan-5 during the work over operation based on written documents received from OIL, replies from OIL against our various queries through mails. Replies on further queries and personal interaction with concerned officers and OIL management are pending. At present, investigations are ongoing, and the Committee will be able to give a clear finding on whom to fix the responsibility for this accident in its subsequent Reports.

c) Immediate Preventive Measures to Avoid Similar Blowout and Explosions

Based on the preliminary assessment, the Committee presents the following preventive measures which are subject to ongoing investigations.

- a) It is pertinent to note that the handling of Gas wells is different than Oil wells. Therefore, it is necessary to have different Standard Operating Process for Gas wells.
- b) Isolation of any Hydrocarbon bearing Zone by a secondary barrier must be taken very seriously and needs to be planned properly. In such well situation the safety barrier cannot be relied upon only on Hydrostatic Head of well

Fluid. There ought to be proper secondary safety barrier, which are tested both positively and negatively to check its integrity before attending any critical operation in the well like nipple down of BOP.

- c) Placement of secondary safety barrier must be placed as near to the perforated zone, and cannot be placed anywhere in the well.*
- d) Placement of Cement Plug is to be always done in the vertical portion of Casing. If required to place Cement Plug in a deviated well, either a perforated Tubing/Drill pipe shoe is to be used and the string ought to be rotated during placement of cement slurry by using swivel joint or use the swivel joint with Kelly of the Rig. After balancing the Plug, the string needs to be pulled out slowly and while breaking the joints, Rotary is to be used to break the joint which will help cement slurry to spill all around and also to fall smoothly from inside string.*

Cement Slurry Design : -

- e) It is important to always design Cement Slurry with water loss additive to control water loss from cement slurry to bare minimum during setting of cement. Retarder may also be added to get the desired thickening time. Compressive Strength of the designed slurry are to be tested at 12 hours, 24 hours and 36 hours to decide upon WOC time. Contingency Plan.*
- f) Before doing any critical operation in well, a comprehensive contingency Plan must be in place to take immediate action to face any eventuality. In this particular well due to not having any such plan, driller at site alone was confused what to do when he observed well activity. Telephonic communication by IM to lower Tubing in Double, PE communicated to lower D/P instead. As a result, precious time was lost. Lowering of few Tubing with hanger cone would not had helped unless Xmas tree was installed. There were few probable options available to save this well.*
 - f) (i) To make an attempt to nipple up BOP again. Had the BOP been simply placed over the well head flange (7-1/16) within the available time, bolting of flange, connecting to choke manifold, flow lines etc. could have been done during flowing well condition also. This was not attempted considering it would take much more time.*
 - f) (ii) Alternately, Tubing Hanger (Cone type) could have been picked up with one single Tubing. The single tubing with cone could have been lowered and cone installed inside well head. The X-Mas Tree then placed with the X over spool, if required. Subsequently, the Crown Valve be closed and the side valves kept open for well flow to continue, if required. It is important to tight all the flange bolts. Then connect the pumping lines to flow arm of X-Mas Tree, open the valve, close side valve of X-Mas Tree*

and then Brine or Mud can be bulldozed to kill the well. The Committee is of the view that this operation would not have taken much time.

(2) The Committee suggests the following procedure to be followed for placement of secondary safety barrier in different scenarios.

a) SCENARIO-1: PERMANENT ISOLATION OF A PRODUCING ZONE.

(1) Perforate the tubing above Packer and circulate the well with kill fluid i.e. to have Hydrostatic pressure more than formation pressure of the Zone. Observe the well, if stable pull out tubing string, Run in a permanent Bridge Plug with tubing and set just above the Packer or zone to be isolated. Test the Bridge Plug at 1500 to 2000 psi. If found holding. Circulate the well with water to check integrity of Bridge Plug under negative Head. Next, place a cement Plug of 50 Mtr above the Bridge Plug, tag and test the plug at 2000 Psi to ensure permanent isolation of the Zone.

b) SCENARIO-2: ISOLATION OF ACTIVE PERFORATED ZONE TEMPORARILY LIKE WELL BAGHJAN-5

(1) Before any critical operation like perforation of the Zone, the surface equipment like Well Head, BOP, Choke Manifold are to be tested first. In this particular well testing of these equipment were done after perforation of the zone and found Well Head seals were leaking, required to isolate the zone which was already perforated for repair or replace the Well Head.

(2) Now in a well situation when well was already perforated and Packer was set above perforation like Well Baghjan-5, the Committee recommends the following steps to follow.

- i) Kill the well with Kill Fluid, observe the well. If stable, pull out Tubing String, lower a Tubing conveyed Retrievable Bridge Plug (RBG) with a perforated tubing single at bottom i.e. just above setting tool and set RBG just above Packer. This Packer can be retrieved after the job with tubing and reused.
- ii) Disengage Tubing setting tool from Packer, Test the packer at 2000 psi. If not holding, retrieve Packer and lower another Packer and reset again. Disengage setting tool from Packer and test the Plug at 2000 Psi. If found OK, displace well fluid with water to check integrity of Packer under negative Hydrostatic Head. Observe the Well for 2 to 3 Hours. If OK, replace the water in the well with Kill fluid and observe the well, if OK, pull out string. To be in safer side, a cement Plug should also be placed at a shallower depth in vertical portion of casing. First place a high viscous Plug of 200 Mtr followed by 100 Mt Sand Plug below the intended Cement Plug. These steps are suggested before placement of Cement Plug to avoid cement cutting falling during drilling of cement at top of RBG which would require to be retrieved

later. Tag and Test the Cement Plug after WOC of 24 hours. If OK, pull out string. Check contingency plan and when ready then go for dismantle of BOP by keeping constant watch on the fluid level of the well. The operation of nipple down of BOP must be done as far as possible at Day time and also in presence of senior responsible officers.

c) SCENARIO-3: IF BOTTOM ZONE IS ISOLATED BY PERMANENT BP, NEED ARISES TO NIPPLE DOWN BOP.

- (i) In such situation though BP was tested positively and negatively even then the recommendation of the Committee would be to place a Cement Plug at a shallower depth in vertical portion of casing, which should be tagged and tested before nipple down of BOP.
- (ii) The Committee would in his subsequent report indicate the person(s) responsible for the blowout incident as the investigation in that regard are still going on. Communications including email exchanges between Sri A. K. Hazarika, former CMD, ONGC, Member of the Committee, and the representative of OIL are appended hereto as Appendix-E Colly.

IV. ONGOING ASSESSMENT OF ENVIRONMENT AND BIO-DIVERSITY OF THE AFFECTED LANDSCAPE :

- (i) Some members of multidisciplinary team, reputed scientific organizations and individuals have been involved in damage assessment of the biodiversity and environment since last part of May, 2020 after the blowout incident in Baghjan Well No. 5. Samples were collected for different parameters and analysis is going on to find out the status of damage on environment and ecosystem of the Baghjan and surrounding landscape including Maguri-Motapung BeeL Dibru-Saikhowa biosphere reserve cum national park and human habitation. Meanwhile wave of multiple floods and complex Covid 19 crisis has caused hurdles in the study. However the committee continued to receive interim reports after the submission of preliminary reports to NGT. All the team members and other stakeholders feel that there is a need for long term study covering all aspects to assess the actual damage caused by the Well No. 5 Baghjan and design appropriate restoration plan for the landscape after complete stoppage of fire and killing of the well.
- (ii) Dr. Ranjita Bania, who is a fishery biologist and former researcher from Dibrugarh University has been involved in the research activities in Maguri-Motapung Beel area since last 15 years. Her team visited and surveyed the area for multiple times from the day one i.e. from 27th May, 2020 when the blow out incident of Baghjan well No 5 was occurred. Some of the findings of her reports in August, 2020 and October, 2020 are listed below and compared with other reports :

The planktons are noticeably declined in the Maguri-Motapung Beel. In a study during June-July, 2020 period only 11 species of phytoplankton (Table 1) and 13 species of zooplankton were recorded (Table 2) from the site. As mentioned in preliminary report submitted to NGT, rich phytoplankton (61 species) and zooplankton (210) diversity were reported (Noroh, 2013) from the Maguri Motapung wetland ecosystem.

It was assessed that Maguri has 87 species of ichthyofauna (Bania, 2011, 2018) out of which only 22 species were found (27th May, 2020-30th July, 2020) in the survey. The team recorded 35 varieties of dead fish species (Table 3) belonging to 13 families. Among the dead species, 22 species are lower risk, near threatened category as per IUCN status. A heavy decline in the catch amount is also reported after the blowout. According to the findings of WIT (2020) that included in the preliminary report, PAHs were detected in fish tissue samples ranging between 104.3 to 7829.6 ,ug/Kg. The highest concentration was observed in fishes collected from Maguri-Motapung wetland. The total PAHs concentration reported in fish samples appears to be 10 - 100 folds higher than the earlier reported concentration in India (WII, 2020).

Recent study by the same team in October, 2020 reveals that some of the prominent species namely *Ompok pabo*, *Nundus nundus*, *Ailia coilia*, *Pseudeutopius atherinodes*, *Channa aurantimaculata*, *Danio rerio* are completely wiped out from the Maguri-Motapung wetland area. Interestingly, very few numbers of *Nandus nundus* were observed at fish landing centre of Gujangha. This is a cause of concern as even after 5 months of the incident, the fish diversity drastically declined in the Maguri-Motapung Bed ecosystem.

The pollutants from the blow out incident seriously affected the breeding season of fishes. *Mystus* species was found in gravid condition. But from last March to July end, no any fish seedling of the species was found in the Beel which clearly indicated that their breeding cycle was impacted. Besides, sudden change in body colour was also noticed for different fish species. The dead fishes were full of mucous layer with a different kind of smell. WII (2020) mentioned significant increase of the PAH in the water of Maguri Beel that caused death of different fish species.

The sudden shock, oil cover and change in dissolved oxygen level have caused death of large number of fishes. The nearby ponds are even affected. On 26th of June, 2020, it was noticed that heavy toll of fishes were coming to the upper surface of water for oxygen.

They exhibited lethargic and irregular body movement. Large number of fishes died on the very next day and continued till 28th June, 2020 also. The dissolved oxygen value came down to 2.1 ppm which cause the high mortality of fishes. The prominent fishes found dead on the day were Labeo gonius which was table sized along with Labeo rohita, Catla catla, Wallagu attu being very high commercial value as food fish.

Majority of the fisher who earn on an average minimum Rs. 2000/- per day has to stop their main occupation upto 3 months. This revealed that heavy loss of the local fisher community in their livelihood and will suffer till the restoration of the Maguri-Motapung Beel.

Significant decrease of encounter of River Dolphin was observed even after 5 months of the blow out incident. Only 2 numbers of river dolphins were observed on 18th October, 2020 in the river stretch from Sobha Nallah (River Dangori) to Kalmi Nallah (River Dibru). The same team has observed 13 numbers of River Dolphins at Koliapani Ghat on 30th June, 2020. It was mentioned in the preliminary report that encounter rate of Gangetic River Dolphin in the area has decreased by 89% post of the oil blowout and also death of an individual.

During interaction with people of Baghjan village and representatives of Milanjyoti Yuva Sangha, it came to light that due to the blockage of pool first pool from BGR 5 towards Notungaon), Baghjan village is suffering from water logging situation causing damage to their remaining crops. They used untreated water released from the Oil site and is expecting to have some chemicals as suspected by the villagers which again need further analysis.

The Baghjan EPS released heavy amount of oil smoke polluting the environment as reported on 8th October, 2020 (2 pm), 25 October, 2020 (7.45 am) and 27 October, 2020 (9.40 am) which continued for almost 30-45 minutes each time.

A report submitted by Milanjyoti Yuva Sagha dated 19/8/2020 showed that 28 years Sumitra Malla had given birth a still born baby boy on 17/8/2020 which was noted as baby IUFD (Infra Uterine Fatal Death). There is an urgent need to assess the effects of blow out on health of villagers specially pregnant women and children.

There is a need for survey to cover all the households in Dighaltarang Tea Estate, Baghjan Beel line, Guijan Ghat and other areas to assess the damage due to the blow out incident.

It needs to be mentioned that Maguri Motapung harbours a wide range of ornamental fish species which are not easily available in other pockets and fetches high value in the international market. Habitat destruction of ornamental species like *Biota rostrata*, *Channa bleheri*, *Badis badis*, *Macragnathus punctatus*, *Badis assamensis*, *Devario refia*, *Ailia coila*, *Chaca chaca* severely posed a threat to these species.

Maguri-Motapung Beel has 57 species of aquatic macrophytes (Bania, 2011) out of which only 15 species (Table 4) under 12 families were recorded after the incident. In some parts of the Beel, complete burning was observed. The decayed parts were giving unpleasant odour and bubble of oil was observed when shacked with a bamboo pool. These are the habitats for many wetland birds and aquatic insects and other invertebrates. Out of the 26 mollusc species (Kardong et al. 2016) reported from the Maguri-Motapung wetland only 4 species namely *Angulyagra oxytropi*, *Lamellidens marginalis*, *Pisidium sp.* and *Sphaerium indicum* are found after blowout in our survey. Important to mention that many people specially the lower economic class uses molluscs as their food and they play very crucial role in the food chain too.

Table 1 : Phytoplanktons found in Maguri Motapung aftermath Baghjan case

SL. NO.	Name
1	<i>Navicula sp.</i>
2	<i>Cholerella sp.</i>
3	<i>Clamydomonas sp.</i>
4	<i>Cladophera sp</i>
5	<i>Closterium sp.</i>
6	<i>Cosmarium sp.</i>
7	<i>Desmidium sp.</i>
8	<i>Netrium sp.</i>
9	<i>Volvox sp.</i>
10	<i>Anabaena sp</i>
11	<i>Oscillatoria sp.</i>

Table 2 : Zooplanktons found in Maguri Motapung aftermath Baghjan case

SL. NO.	Name
1	<i>Anuraeopsisfissa</i>
2	<i>Collurella sulcata</i>

3	<i>Depheuchlanis propatus</i>
4	<i>Fillinia longiseta</i>
5	<i>Keratella cochlearis</i>
6	<i>Lecane aceleate</i>
7	<i>Lecane ovalis</i>
8	<i>Monostyla bulla</i>
9	<i>Alona sp.</i>
10	<i>Alonella dentifera</i>
11	<i>Bosmina longirostris</i>
12	<i>Daphnia sp.</i>
13	<i>Diaptomus sp.</i>

Table 3: Dead fish species found in the Maguri Motapung wetland

Si	Name of fish species
1	<i>Notopterus notopterus (Pallas)</i>
2	<i>Barilius barila (Ham-Buch)</i>
3	<i>Catla catla (Ham-Buch)</i>
4	<i>Cirrhinus mrigala (Ham-Buch)</i>
5	<i>C. reba (Ham-Buch)</i>
6	<i>Esomus danricus (Ham-Buch)</i>
7	<i>Parluciosoma dan conius (Ham-Buch)</i>
8	<i>Labeo bata (Ham-Buch)</i>
9	<i>L. calbasu (Ham-Buch)</i>
10	<i>L. gonius am-Buch)</i>
11	<i>L. rohita (Ham-Buch)</i>
12	<i>Puntius. Conchonius (Ham-Buch)</i>
13	<i>P. gelius (Ham-Buch)</i>
14	<i>P. sarana sarana (Ham-Buch)</i>
15	<i>P. sophore (Ham-Buch)</i>
16	<i>P. ticto ticto (Ham-Buch)</i>
17	<i>Rasbora Rasbora (Ham-Buch)</i>
18	<i>Salmphasia (Salmostoma) bacaila</i>
19	<i>Acanthocobititis botia (Ham-Buch)</i>
20	<i>Botia dario (Ham-Buch)</i>
21	<i>M.ystus cavausius (Ham-Buch)</i>
22	<i>M. tengara (Ham-Buch)</i>
23	<i>M. vittatus (Ham-Buch)</i>
24	<i>Wallago attu Scheidner</i>
25	<i>Eutropiichthys vacha (Ham-Buch)</i>
26	<i>Clarius batracus</i>
27	<i>Heteropneustes fossilis (Bloch)</i>

28	<i>Mastacembelus. annatus (Lacpede)</i>
29	<i>Mastacembelus pancalus (Ham-Buch)</i>
30	<i>Pseudambassis (Chanda) nama (Ham-Buch)</i>
31	<i>Badis backs (Ham-Buch)</i>
32	<i>Trichogasterfasciatus (Schneider)</i>
33	<i>T. lalia (Ham-Buch)</i>
34	<i>Channa punctatus (Bloch)</i>
35	<i>Channa aurantimaculata (Musikasinthom)</i>

Table 4: Aquatic Macrophytes of Maguri Motapung Wetland

Sl. No.	Name of Species	Ecological Habitat
1	<i>Ceratophyllum demersum</i> L.	OS
2	<i>Pistia stratotes</i> L.	FF
3	<i>Ipomea aquatica</i> Forsk	AFS
4	<i>Hydrilla vertwillata</i> L. f	OS
5	<i>Vallisneria spiralis</i> L.	OS
6	<i>Nymphoides inckca</i> (L)O. Ktze.	AFS
7	<i>Nymphaea pubescens</i> Willd	AFL
8	<i>Ludwigia adscendens</i> (L.) Hara	AFS
9	<i>Spirodela polyrrhiza</i> L. Schleid	FF
10	<i>Hygroryza aristata</i> (Betz.) Neesex W &A	AFS
11	<i>Leersia hexandra</i> Swartz	AFS
12	<i>Eichhornia crassipes</i> (Iart.)Solms	FF
13	<i>Monochoria hastata</i> (L.) Solms.	EP
14	<i>Salvinia cucullata</i> Roxb. Ex Bory	FF
15	<i>Trapa natans</i> (L.) Roxb.	AFS

(iii) Dr. Jihosue Biswas from Primate Research Centre North East India and a member of multidisciplinary team provided his findings on primates and other wild fauna affected by the blow out within the vicinity of a 5 km radius of Baghjan Well No. 5. His findings are given below :

A dead gibbon (Hoolock hoolock) was born on 28th September 2020 in Purani Motapung village, believed to be a still birth. The Purani Motapung village under Barekuri is situated in the southern periphery of Maguri-Motapung Bed which is 4.3 km away from the blow-up site aerially (27° 33' 57.21" N & 95° 24' 46.84" E). It was reported that the female carried the dead baby for 4 days and on 2nd October 2020, she abandoned the body, and the carcass was taken by dog. According to the villagers and media, this incident of gibbon still birth was due to impact of Baghjan blow-up. While preparing this report, the investigator got the news of death of the mother gibbon also on 27th October. The said gibbon was sick, did not take any food for the last two days, ceased all activities, and rest on the tree top. Although, the veterinarian from Wildlife Trust of

India and the local forest officials tried to treat the gibbon, but failed. A postmortem was conducted by the veterinarian of Wildlife Trust of India in presence of local forest officials and the viscera was sent to the forensic lab for further analysis.

The team visited area on 11th October 2020 to investigate the case. The gibbon group comprised four individuals, one adult male, one adult female, one sub-adult male and one juvenile female. Purani Motapung have two such gibbon groups each having three individuals and two floating males. The adult male of the group was missing and the mother of the deceased infant was hostile to the existing sub-adult male as an intense fight between the female and the sub-adult male was observed. The sign of parturition in female was observed, which confirmed the birth episode. It is assumed that, since during pregnancy, the female gibbon compelled to feed on contaminated leaves and plant parts apart from direct exposure to the xenobiotic pollutants, the domestic cattle were also exposed to such pollutants and must have experienced similar situation. To assess this, the investigator decided to conduct a semi-structured face-to-face questioner survey (Huntington, 2000) of Purani Motapung village on recent infant death of domestic animals particularly cattle and goats.

The team interviewed 11% of households of Purani Motapung village and found that only 50% of households possess domestic cattle. After the Baghjan blow-up, during the last five months, 9 calves were born in these houses, and 44.4% of mortality or loss to all causes was observed. Among this, 22.2% of calves were born alive and died within a few days and 22.2% were stillbirth. It was found that the death rate of calves in the Purani Motapung area was 0.29/year which is much higher than the state average in normal time. While the observed stillbirth rate of cattle was 0.14/year. Similarly, the observed death rate of the goat was 0.25/ year. The study thus suggests that calf mortality in domestic cattle in Purani Motapung village during this period could be linked to the xenobiotic pollutants of Baghjan blow-up and indicates possible impacts on Hoolock gibbon, since the animals were also exposed to toxic gases and condensate during pregnancy and consumed toxins in contaminated.

The study also suggests that after blow-up during the period from 27.05.2020 to 08.06.2020 when the toxic gases with condensate were being blown out, the immediate impact of exposure on domestic animals was dizziness, as 89.6% of respondents said that the cattle and goats became unbalanced and restlessness and ceased all activities, while 55.3% respondents said that the animals were also suffered blur eyesight and 78.95% respondents said that they witnessed premature fall of leaves from trees during that period. 42.1% of respondents said that the cattle were suffering from skin diseases after blow-up (fig -2).

During the short bout of field survey (11th to 13th October, 2020) in the Maguri Motapung Beel and in the Dibru River, it was observed that bird density and diversity within a 2 Km radius of the blow-up site had reduced substantially and encounter rate was invariably low even after 5 months which indicates their populations lower than before. The team did not sight any threatened bird species in the grassland as most of their habitats have been badly affected. Even no migratory bird or winter visitors were observed during our visit in Maguri Beel, which is otherwise visited every year in the area in early to mid-October except wagtail. The noise pollution added extra deterrence to the winter migratory birds. They observed thin oil slick in Maguri Beel and in the Dibru River as small amount of oil and condensate still spill from the blowup side and collected water samples from 8 such sites and hand over it to Gauhati University for further analysis.

*Regarding mammalian fauna inside the Dibru-Saikhowa National Park, very low encounter rate was observed. Amongst them Asiatic Water Buffalos (*Bubalus arnee*), Gangetic Dolphin (*Platanista g. gangetica*), Rhesus Macaque (*Macaca mulatta*) and Hoary bellied squirrel (*Callosciurus pygerythrus*). Except Gangetic dolphin and water buffalos, no death was documented on other mammalian species due to oil spill after blow-up. Inside the park, the team observed three fresh carcass of domestic buffalos in the river, which depict grave picture. Many others species like ungulates, primates, felid, canine and rodents group apparently dispersed during blow-up but might have secondary exposure and it is still too early to tell definitively what the impact has been for these species and required detailed study. A comprehensive impact assessment is urgently required along with an integrated ecological restoration plan for bioremediation of hydrocarbons polluting the soil and wetland.*

A copy of the Report dated 29.10.2020 submitted by Dr. Jihosuo Biswas is appended hereto as Appendix-H.

iv) The observation of Aaranyak, a member of multidisciplinary team is given below :-

The noise pollution from the Baghjan Well-5 along with periodic vibration is being felt in the surrounding areas of Baghjan. It is also learnt that affected people are still in temporary shelter camps and as per information received, affected families are being given some monetary compensation by Oil India Limited.

Due to monsoon rain and runoff of the water, some effect on soil and water pollution have been reduced to some extent but overall effect in surrounding habitats including Maguri-Motapung wetland can only be seen when surface water level goes further down.

As winter is approaching, the effect of the Baghjan Gas/Oil leakage leading to big fire on migratory bird species may only be ascertained from November onwards.

The team noticed consistent vibration still occurring around Baghjan Well-5 and its possible impact on falling down of concrete houses along the bank of Lohit River adjacent to Dibru-Saikhowa NP in Guijan area. There is a need of detail study in this regard.

There are some local reports on the death of about 100-150 Domestic Buffalos around Baghjan area, especially in Buffalo khutis. However, it is not known whether those deaths are due to any impact from Baghjan Gas/Oil leakage or subsequent fire or due to some other factors including diseases. Same may be investigated by the concerned government department to confirm the cause of such deaths.

(v) Some restorations of habitants are seen in the photographs. In this regard the committee opined that there should be proper study to find out the toxicity of the plant materials. This will help in the investigation of the abnormal death of the domestic and wild animals as well as restoration design of the landscape. A copy of the Report dated 27.10.2020 submitted by Aaranyak is appended hereto Appendix-I.

(vi) Dr. Ranjan Kumar Das, a member of the Multidisciplinary Team vide his Report dated 30.10.2020 has presented an assessment of the impact on grassland and wetland birds and their habitats in and around the site. He states as under:

There are two very prominent phases of impact.

- 1) Impact during 27-05-2020 to 08-06-2020 when the toxic gases with condensate were blown out.*
- 2) Impact from 09-06-2020 after the raging fire broke out which is continuing for more than 150 days at the time of preparing this report.*

Phase-I

Both the phases have their unique characteristics of damages that were very devastating. During the first phase the impact was widespread and the toxic gases dispersed to a long distances along with the wind directions. It was felt up to the distances of about 9 Km where I am writing this report at my place of residence. On the other hand the oil spill and condensate were thrown to a distances of about 2Km radius on the ground where all the phytoplankton and zooplankton were directly affected along with the effect on human life. During that phase many villagers complained with different health issues. Within the radius of 2 Km every plant and animal life was affected when most of the plants covered with oil and condensate, died off. There were coatings of oil film seen on each and every plant life, water bodies, tea gardens, agricultural fields and on the other manmade structures. The grasslands were severely affected and most of the breeding endemic Red data book

grassland birds listed in the Table: I abandoned their nest without hatching or left their chicks to die.

Phase-2

On 09-06-2020 suddenly the fire broke out and it engulfed a huge area. Immediately within the range of about 1Km radius everything came in contact with fire and almost all burned to ashes. Many people have been evacuated immediately and most of the houses with all their belongings near the Baghjan well No. 5 were totally damaged by raging inferno. Most of the small tea gardens near the well No. 5 burned to ashes. But the fire engulfed the most of the grasslands towards the south western side as they were already highly inflammable due to the presence of oil condensate both on the grounds as well as on the frees and grasses. Another threat was the blowing wind at that moment when fire started to spread in the direction of wind. A large area of the grassland in the western side of the oil well got fire and the ecosystem was badly affected. Most of the breeding endemic threatened birds fled the place leaving behind their nests. During my preliminary field survey it was observed that bird density and diversity was very less within the radius of 1Km where basically a few numbers of common gregarious birds were seen. Not a single threatened Red Data Book birds were observed during my field survey as most of their habitats were badly affected by fire. Even after the three waves of floods we had seen the presence of oil sleek and condensate in the grassland habitat on 14-07-2020. Many species of herpito fauna, amphibian, and insect were killed after the fire broke out.

Phase-3

It's already been more than 150 days of continuous blowout which is still going on with high decibel noise, water and air pollution. This phase-3 has been based on the change of season which would be totally different from the view point of meteorological as well as hydrological characteristics. During winter the entire habitats for grassland and wetland bird changes. Some of the early winter migratory birds have already been arrived in the Brahmaputra valley through two different international flyways which are known as Central Asian Indian flyway and East Asian Australian flyway. Both these two flyways overlapped over north-east India

*On 25th of October 2020 there was sighting report of Amur Falcon-*Falco amurensis* a migratory raptor which comes all the way from Japan and East Asia. Moreover, some Plovers, Wagtails and Warblers are already sighted in and around Maguri-Motapung wetland. But these are widespread visitors covering different habitats and they can somehow adopt themselves in some adverse environmental situations up to a limit. The major winter migratory birds like Ducks and Geese are not yet sighted which particularly needs undisturbed environmental conditions. By November last they will start to come. As the peak winter migratory season starts from last part of November to February both for the grassland and wetland birds, the constant monitoring during this period is most important. Only then the proper assessment of the impact on these*

birds can be done by observing their numbers, behaviors and foraging habit.

A copy of the Report dated 30.10.2020 as submitted by Dr. Ranjan Kumar Das is appended hereto as Appendix-J.

(vii). All the experts from the multidisciplinary team and committee members expressed their views that there should be a detailed study on all the aspects to assess the actual damage on the environment, biodiversity and local communities caused by the blow out and subsequent fire on Well No. 5 Baghjan. Secondly a practical restoration plan for the affected landscape should be developed as well as arranging proper rehabilitation and compensation to the affected families. All reports that have been submitted including those made by independent members of the multi-disciplinary team are being assessed along with the samples and data that are to be collected in future. A comprehensive report of the same will be presented in are subsequent reports. The reference list relied upon for this section is appended hereto as Appendix-K.

V. STATUS ON THE ISSUE OF COMPENSATION TO THE AFFECTED FAMILIES

- (i) The Hon'ble NGT in its Order dated 06.08.2020 in O.A. No. 43/2020 (EZ) and O.A. No. 44/2020 (EZ), inter-alia directed payment of compensation to victims of categories (ii) and (iii) subject to identification by the District Administration. In terms of the said Order, this process was to be completed preferably within one month and overseen by the Assam State Legal Services Authority.
- (ii) In compliance of the above-mentioned Order, **the reports of the Assessment Teams dated 24.08.2020 constituted by the Office of the Deputy Commissioner, Tinsukia provided a finding of 57 families who had suffered Severe Damage and 561 affected families in the area. These reports were communicated to the Deputy Commissioner, Tinsukia by the Circle Officer, Doomdooma Revenue Circle and the relevant correspondence has been annexed to this Report. However, the list of affected families in the area submitted vide Letter dated 24.08.2020 was re-verified by the Assessment Team and the Magistrate-in-Charge wherein it was found that some of the names of beneficiaries had been repeated while some had been included in the first list enumerating those whose houses had suffered Severe Damage. The revised list after re-verification contained 543 beneficiaries as opposed to 561 and was communicated to the DC, Tinsukia by Circle Officer, Doomdooma Revenue Circle vide Letter dated 31.08.2020. A copy of the Letter No. DRC 16/2015-16/Pt-I/125 dated 24.08.2020 addressed by Circle Officer, Doomdooma Revenue Circle to Deputy Commissioner, Tinsukia is appended hereto as Appendix-L. A copy of the Letter No. DRC**

16/2015-16/Pt-11127 dated 24.08.2020 addressed by Circle Officer, Doomdooma Revenue Circle to Deputy Commissioner, Tinsukia is appended hereto as Appendix-M. A copy of the Letter No. DRC 16/2015-16/Pt-I/128 dated 31.08.2020 addressed by Circle Officer, Doomdooma Revenue Circle to Deputy Commissioner, Tinsukia is appended hereto as Appendix-N.

- (iii) *In the intervening period, on 24.08.2020, about 120 persons comprising of a large number of women from Baghjan Gaon, led by the Baghjan Gaon Milonjyoti Yuba Sangha started a sit-in demonstration adjacent to the Office of the Deputy Commissioner, Tinsukia. They submitted a Memorandum dated 09.08.2020 to the Hon'ble Chief Minister, Assam and the said memorandum had also been forwarded to this Committee. The primary claims set out in the memorandum are reproduced herein below :*
- I. The families of Baghjan Gaon who have been affected fully/severely should be included in the Category (i) (Rs. 25 Lacs for each family) in terms of the Hon 'ble NGT order in addition to those families whose houses have been gutted.*
 - II. The remaining affected families from Baghjan Gaon should be included in Category (ii). They demanded that Category (ii) affected families from Baghjan gaon should each be paid advance amount of Rs. 20.00 Lacs.*
 - III. They further demanded that instead of 03.11.2020 for declaring the final compensation by Hon 'ble NGT, it should be done expeditiously*
- (iv) *The said developments were communicated to the Committee by the Deputy Commissioner, Tinsukia vide his letter dated 25.08.2020 and 26.08.2020. It is worth noting that these developments had also created a law and order situation in Tinsukia district. A final proposal for compensation to 57 families in Category (i) and 561 families in Category (ii) was submitted to the Committee by the DC, Tinsukia vide the above-mentioned letter dated 25.08.2020. The said proposal was subsequently endorsed by the Secretary, District Legal Services Authority, Tinsukia on 29.08.2020. The proposal was modified after re-verification of the list to include 543 families as opposed to 561 by a subsequent letter dated 31.08.2020 addressed to the Committee by DC, Tinsukia. In view of these events, the Committee was of the considered opinion that it was necessary to submit the First Interim Report dated 01.09.2020 to the Hon'ble NGT for its urgent consideration. A copy of Letter No. TCA.3/2020/570 dated 25.08.2020 addressed to the Chairman, Committee of Experts from DC, Tinsukia is appended hereto as Appendix-O. A copy of Letter No. TCA.3/2020/580 dated 26.08.2020 addressed to the Chairman, Committee of Experts from DC, Tinsukia is appended hereto as Appendix-P. A copy of Letter No.*

TCA.3/2020/602 dated 29.08.2020 addressed to the Chairman, Committee of Experts from DC, Tinsukia is appended hereto as Appendix-Q. A copy of Letter No. TCA.03/2020/706 dated 31.08.2020 addressed to the Chairman, Committee of Experts from DC, Tinsukia is appended hereto as Appendix-R.

(v) As has been discussed above, the First Interim Report dated 01.09.2020 formulated the following recommendations for urgent consideration of the Hon'ble NGT :

- (a) 57 families identified by the DC/District Magistrate, Tinsukia be included in Category (i) and they should be paid Rs. 25 Lacs each as interim compensation;
- (b) 543 families as identified by the DC/District Magistrate, Tinsukia be included in Category (ii) and they having been the worst sufferers, the payment of interim compensation to those families may be enhanced to Rs. 15 Lacs.
- (c) The compensation, if any paid, shall be deducted from the aforesaid interim compensation.

(vi) **Following the submission of the Report on 01.09.2020, a tripartite talk involving the District Administration (including police officials), senior OIL India Ltd. officials and representatives of the Baghjan Gaon Milanjyofi Yuva Sangha was held in view of the agitation programme undertaken by the said organisation since 17.09.2020. As communicated to the Committee by letter dated 25.09.2020 from DC Tinsukia, inter-alia, the following moot points as regards issue of compensation were discussed and resolved as under :**

"... (4) During the re-survey the list of additional affected families were prepared and added in the Category-I. An additional 104 families were inducted into Category-I to the earlier list containing 57 families which is being attached herewith as Annexure-E. Now the number of families stands at 161. The remaining 439 families have been categorized as Category II (List enclosed Annexure-F).

In kind considerations of the above, the Experts Committee headed by your kind office may like to recommend to the Hon 'ble NGT to consider the affected families of Baghjan Gaon in two categories- Category-I (12+57+104=173 Nos. of families) and Category-II (439 Nos. of families) as the final compensation of Baghjan affected families."

A copy of Letter No. TCA.3/20201PT-I/781 dated 25.09.2020 addressed to the Chairman, Committee of Experts by the DC, Tinsukia is appended hereto as Appendix-S.

- (vii) *In the meantime, the Member Secretary, Assam State Legal Services Authority also made a site visit from 18.09.2020-19.09.2020. In its report submitted to the Committee of Experts, the ASLSA has provided a factual analysis of the situation at the site apart from enumerating its views and suggestions as regards compensation, which is appended hereto as Appendix-T.*
- (viii) *The Deputy Commissioner, Tinsukia being one of the Members of the Committee appointed by the Hon'ble NGT and also the head of the Revenue in the District has resurveyed the affected families and recommends that an additional 104 families be inducted into Category (i) to the earlier list containing 57 families. He has further recommended that for the disbursement of the final compensation, the affected families of Baghjan Gaon be revised into two categories and the number of affected families would be as follows*

Category (i): (12+57+104 = 173 Nos. of families)

Category (ii): (439 Nos. of families)

The Committee is inclined to accept his recommendation for payment of Rs. 25 Lacs to the identified 173 nos. of families and Rs. 20 Lacs to identified 439 nos. of families, subject to the process being over seen by the Assam State Legal Services Authority. The amount already paid to any of the aforesaid families shall be deducted from the said amount. Hence, the Hon'ble NGT may consider passing necessary order in that regard for payment of interim compensation as suggested.

E INITIATIVES TAKEN FOR THE AFFECTED FAMILIES OF BAGHJAN:

- i) ***The DC, Tinsukia has apprised the Committee that all the affected families and individuals who are staying at the relief camps have been relocated to suitable rented accommodation. The cost of such relocation has been borne by OIL India who have agreed to pay an honorarium of Rs. 50,000/- per month per family. Further, OIL has deposited an amount of Rs. 36.9 (Crore) to the Office of the Deputy Commissioner, Tinsukia for payment of compensation in various categories. As on date, Rs. 15.6575 (Crore) has been credited to the account of affected families in different categories.***
- ii) ***Further, multiple schemes have been announced by the Hon'ble Chief Minister of Assam for the affected people upon his visit to the site. These include establishment of Model Hospital at Baghjan, construction of Veterinary Dispensary, proposal for Baghjan Rehabilitation through Handloom Weaving. A copy of the letter dated 27.10.2020 from the DC, Tinsukia addressed to***

the Committee of Experts is appended hereto as Appendix-U. Additionally, a Psychological counselling will be provided by a team of psychologists led by a team of Dr. Bitopi Dutta through an NGO named "Voluntary Association for Social Upliftment" based in Guwahati. The fund of Rs. 5.00 lakhs for such counselling will be borne by OIL India."

12. The recommendations and conclusion based on the above findings are :-

“RECOMMENDATIONS :

- i) *The Committee reiterates the conclusions drawn in the Preliminary Report and recommends that direction may be issued to the PCB, Assam to take appropriate legal action against OIL and its officials for violation of the mandatory requirements of Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, and

Authorization under the Hazardous Waste (Management & Handling) Rules, 1989 and the

Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016.*
- ii) *OIL has been unable to carry out the Biodiversity Impact Assessment Study either through the Assam State Biodiversity Board, as was mandated by the Hon'ble Supreme Court, a fact that stands corroborated by the Assam State Biodiversity Board, or by any other agency. Such actions place OIL in continuing contempt of the directions passed by the Hon'ble Supreme Court of India, specifically its Order dated 07.09.2017 granting conditional approval to OIL to undertake the present extraction of hydrocarbons from the proposed wells including the Well B aghj an-5 .*
- iii) *The OIL stands in contravention of the provisions Environment (Protection) Act, 1986 and the Environment Impact Assessment (ETA) Notification, 1994 under which it is mandatory to obtain EC for any onshore drilling projects before commencement of activities on 20.11.2006.*
- iv) *Based on the Reports received by multiple agencies, including PCB, Assam, it is evident that the ambient noise levels in and around Well Baghjan No. 5 are well above the permissible standards.*

It is therefore recommended that OIL be directed to take immediate and all other urgent measures to bring down the noise level within the limit prescribed under Rule 3(1) and Rule 4(1) of the Noise Pollution (Regulation and Control) Rules, 2000.

Additionally, PCB, Assam may be directed to initiate appropriate legal action against the competent authorities of OIL under the provision of Rule 8 of the aforementioned Rules.

Further, in the interim, a health fund may be generated by contributions made available by OIL, to be administered by the DC, Tinsukia, to defray the cost of treatment including any specialized

treatment of any person(s) suffering from any ailment/condition/illness due to the heightened noise levels. Such fund may be replenished from time to time as may be deemed necessary and appropriate by the DC, Tinsukia.

- v) *Thus, the continuing extraction of hydrocarbons around the DSNP would qualify as a Red category project, having it been declared as an eco-sensitive zone (ESZ) and would place it in clear violation of the Notification No. WG/G-1521/18-19/27 dated 04.05.2019. Neither OIL nor PCBA have clarified their position before the Committee qua the inconsistency with the mandate given by the Central Pollution Control Board qua industries and extent of such noncompliance.*

The Deputy Commissioner, Tinsukia being one of the Members of the Committee appointed by the Hon'ble NGT and also the head of the Revenue in the District has re-surveyed the affected families and recommends that an additional 104 families be inducted into Category (i) to the earlier list containing 57 families. He has further recommended that for the disbursement of the final compensation, the affected families of Baghjan Gaon be revised into two categories and the number of affected families would be as follows :

*Category (i): (12+57+104 = 173 Nos. of families)
Category (ii): (439 Nos. of families)*

The Committee is inclined to accept his recommendation for payment of Rs. 25 Lacs to the identified 173 nos. of families and Rs. 20 Lacs to identified 439 nos. of families, subject to the process being overseen by the Assam State Legal Services Authority. The amount already paid to any of the aforesaid families shall be deducted from the said amount. Hence, the Hon'ble NGT may consider passing necessary order in that regard for payment of interim compensation as suggested.

CONCLUSION :

- (i) *The Committee from time to time by issuing various e-mails have called for relevant information and reports from OIL and other Agencies including the various Committees constituted by various authorities including the Government of Assam to look into the issues arising out of the blow out. The information including the reports available with the OIL and the Government of Assam have been furnished to the Committee. Multiple reports including the following have not been furnished so far by OIL or other Agencies to the Committee as those are either not available with them or the reports are not ready :*
- (a) *Reports of Director General of Mines Safety, Ministry of Labour and Employment, Govt. of India,*
 - (b) *Reports of Oil Industry Safety Directorate, Ministry of Petroleum and Natural Gas, Govt. of India,*
 - (c) *Reports of Directorate General of Health Services, Ministry of Health and Family Welfare, Govt. of India,*
 - (d) *Reports of MIS ERM(India) Pvt. Ltd,*
 - (e) *Reports of Assam Agriculture University, Jorhat and Reports of Soil Compaction Study.*
 - (g) *Report of the 3 (three) members High Level Committee constituted by the Ministry of Petroleum & Natural Gas, Government of India.*

- (f) *Report of the Multi-Member Expert Committee headed by Sri M. K. Yadava, I.F.S., Additional P.C.C.F. constituted by the Government of Assam vide Notification dated 02.06.2020.*
- (g) *Report of the One Man Committee constituted by the Government of Assam vide Notification dated 12.06.2020.*
- (h) *Report of the Committee headed by Sri Maninder Singh, I.A.S., Additional Chief Secretary, Guwahati Development Department constituted by the Government of Assam vide Notification dated 12.06.2020.*
- (ii) *OIL has also informed the Committee that the study to be conducted by M/S ERM (India) Pvt. Ltd. and Assam Agriculture University, Jorhat would be completed only after the final killing of the Well. To carry out the Soil Compaction Study, the OIL has very recently engaged an agency, report of which is also not ready. In this context, the Hon'ble NGT may be pleased to consider whether a direction is necessary to all agencies including OIL to furnish their reports/findings to the Committee by a fixed date. It is imperative that these reports be furnished at the earliest to enable the Multidisciplinary Team to arrive at a reasonable assessment of the costs involved for restoration.*
- (iii) *The various report and / or information furnished by OIL and other agencies to the Committee and also information / data already collected and to be collected by the Multi-Disciplinary Committee have to be assessed after conducting further test(s), wherever required. The collection of primary data being still on the Committee is unable to submit its final report before 03.11.2020 as directed by the Hon'ble NGT, more so when the source of pollution is yet to be extinguished. In this context, the Hon'ble NGT may be pleased to direct OIL to undertake all urgent and necessary efforts to silence the well immediately.”*

13. The report dated 10.12.2020 *inter-alia* states:-

“4. It is pertinent to note here that in the interim and during the pendency of these proceedings, OIL vide its Letter Ref No. RCE: 03-351 dated 02.12.2020 have accepted the aforesaid mechanism for payment of interim compensation to the identified affected families with a reduced compensation amount, as ad interim measure, than as recommended by the Committee as under:

- i. Category A: Rs. 15 Lacs for 161 families each**
- ii. Category B: Rs. 10 Lacs for 439 families each**

5. OIL (vide the same letter) has further intimated the DC, Tinsukia of its intention to earmark Rs. 62.546 crores, presently available, for payment of ad interim compensation to the aforesaid affected 600 affected families of Baghjan village. Copies of the Letters Ref No. RCE: 03-351 dated 02.12.2020 and REF No. ED(HR&A)/ 63 (T)/ 234 dated 02.12.2020 submitted by OIL to DC, Tinsukia is annexed hereto and marked as Annexure A Colly.”

14. It is further stated that the Committee undertook field interaction with the representatives of the villagers and officials of the OIL and asked

the Deputy Commissioner, Tinsukia to conduct assessment of the damage and also asked State Legal Services Authority to constitute sub-Committees for assessment of the compensation to the victims. Finally the Committee has mentioned following about the budgetary allocation of the multi-disciplinary committee and for the non-official members:-

“E. BUDGETARY ALLOCATION TO ENABLE THE WORKING OF THE MULTIDISCIPLINARY COMMITTEE

10. (i) *The Multidisciplinary team which has been set up, as indicated in the Progress Report dated 30.10.2020, has placed an estimated cost proposal of Rs. 29,45,800/- (Rupees Twenty-Nine Lacs, Forty-Five Thousand Eight Hundred only) in order to study the ecological impact of the blowout and the explosion of Well No. 5 Baghjan. The said financial proposal has been sent by the Committee to the Department of Environment and Forest, Government of Assam vide Letter dated 09.11.2020. In its response dated 05.12.2020, the Government of Assam had directed the Principal Chief Conservator of Forest & HoFF, Assam to submit an online Financial proposal for further action. The same proposal has also been submitted to the Member Secretary, Central Pollution Control Board (hereinafter referred to as “CPCB”) for necessary action. However, sanction remains pending till date. Continued unavailability of the fund has posed significant challenge on the working of the multidisciplinary committee. In fact, due to the unavailability of funds, the members, except three of them, have been unable to visit the site till date even after the fire has been controlled and the well has been killed. Copies of the letter dated 09.11.2020 submitted to the Principal Secretary, Department of Environment and Forest, Government of Assam along with their response dated 05.12.2020 is annexed hereto and marked as Annexure E Colly.*

(ii) It is pertinent to mention here that the Director (Scientist E), Divisional Head, IPC-I Division, Central Pollution Control Board vide mail dated 09.12.2020 has informed the Committee that the CPCB has recommended the project “Assessment of Air, Water and Soil Quality in Baghjan Well Blowout Site and its Vicinity, Tinsukia, Assam” which include assessment of environmental damage with a cost of Rs. 81.40 Lacs to NEIST, Jorhat.

The Committee, however, is yet to take a final decision in that regard.

F. HONORARIUM FOR THE NON-OFFICIAL MEMBERS OF THE COMMITTEE AND THE RESEARCH ASSOCIATES

11. ***In this context, it is pertinent to note that the Hon'ble NGT vide its Order dated 24.06.2020 had directed that the initial expenditure for the functioning of the Committee shall be borne by the State of Assam. However, no funds have been allocated for the working of the Committee. In fact, the monthly honorarium and modalities of payment are yet to be specified. Consequently, the non-official members of the Committee, who have since retired from their respective services and three of its Research Associates have been working with utmost sincerity and diligence without any honorarium. The Committee had apprised the Hon'ble NGT of this fact vide its letter dated 06.10.2020. A copy of the Letter dated 06.10.2020 is annexed hereto and marked as Annexure F.***
12. *The Hon'ble NGT, therefore, may be pleased to consider these aspects of the matter and pass necessary order as deemed fit and proper.”*

Objections of the OIL to the recommendations of the Committee

15. The OIL has filed its objections to the report dated 31.10.2020 on 16.12.2020 to the effect that the findings of the Committee are based on secondary data through various stakeholders. The Committee of Experts has not verified the said data by visit to the site. The multi-disciplinary Committees could not have been constituted by the Committee by delegating its authorities. Earlier interim report dated 01.09.2020 was also without proper assessment and without considering the viewpoint of OIL.

16. With regard to findings on the subject of 'consent to establish' (CTE) and 'consent to operate' (CTO), it is stated that applications have been duly made since 2006-07 which are pending and after four months deemed consent can be evoked under Section 25 (7) of the Water (Prevention and Control of Pollution) Act, 1974 (Water Act) and 21(4) of the Air (Prevention and Control of Pollution) Act, 1981 (Air Act). It is further stated that hazardous waste authorization has been duly granted on 15.06.2017 for five years. CTO was granted for 2018-19 and for subsequent periods, applications have been duly filed. With regard to the order of the Hon'ble Supreme Court requiring biodiversity study, it is stated that the area is

outside Eco Sensitive Zone area of DSNP as per Notification dated 28.01.2020. Biodiversity study has to be carried out by the Assam State Biodiversity Board. The said Board has issued letter dated 29.08.2020 that such study is not immediately possible in view of environmental crisis around the area. With regard to compliance of the EP Act, 1986, it is stated that when the project was set up its value was less than 50 Crores and no Environmental Clearance (EC) was required in terms of Notification dated 27.01.1994. However, approval was granted on 14.05.2003 by the Ministry of Petroleum and Natural Gas for 20 years. The 2006 Notification was not applicable as the project started prior to the said Notification. Still, EC was obtained in the year 2011. The OIL has rehabilitated the local people residing within 5 KMs of the project into relief camps by providing all necessary facilities. Noise barricading has been installed to control the noise level. The fire has been put off completely on 15.11.2020. Well cleaning was completed on 03.12.2020. There is, thus, no ground to take action against the Authorities of OIL under Rule 8 of the Noise Pollution (Regulation and Control) Rules, 2000. The observations of the Committee that extraction of hydro-carbons around the DSNP should be treated as 'red' category project is not correct. With regard to health assessment survey, it is submitted that safety measures were duly adopted in drilling the well. However, the contractor M/s John Energy Limited wrongly removed the blow out preventer (BOP) which led to the damage. OIL started debarment proceeding against the Contractor and the contract was finally placed in holiday list and debarred from entering any contract for two years. The High Court directed further opportunity of hearing vide order dated 21.10.2020 in WP No. 4517/2020. The order of termination of contract was confirmed on 30.10.2020. With regard to the assessment of compensation for environment and loss of biodiversity, it is stated that

committee has acted on secondary data beyond the mandate of the order of this Tribunal. With regard to compensation, the objection of the OIL is that:

“21. That, with regard to observations at Para-D (V) (iv) and (v) (Page-40), the Answering Respondent Company submits that vide proposal Reference No. TCA.3/2020/570 dated 25.08.2020, Deputy Commissioner; Tinsukia has placed incorrect facts before the Hon'ble Committee of Experts. That under Para. 8.0, it was mentioned that the affected families otherwise falling in category (iii) as per categorization of the Hon'ble NGT may be included in category (ii) the reason being those families have been affected the most, being in the closest vicinity to the blowout and they have been subjected to continuous sound and air pollution resulting from the blow-out and fire. Further, they have apparently faced the maximum impact on their health, including mental stress and disorientation.

Thus the ground taken for award of compensation mentioned as 'distance irrespective of whether houses have been severely damaged or not' is highly flawed since the local population has been shifted to the safety, security and facilities of relief camps immediately after the blow-out and even before the fire broke out on 09.06.2020. Therefore, the basis of inconvenience and discomfort of the local residents as a ground for compensation and their upgradation to category (ii) as well as enhancement of the amount from Rs. 2.5 lakhs to Rs. 20 lakhs is totally misconceived.

That it is submitted that the said Interim Report by the Deputy Commissioner; Tinsukia was submitted on 01.09.2020 immediately after proposal of Deputy Commissioner, Tinsukia vide Letters Reference No. TCA.03/2020/706 dated 31.08.2020 raises serious doubts on the credibility of the Report which was drawn citing most urgency. Moreover, the Interim Report has never been shared with the Answering Respondent Company and therefore the recommendations/ contents are not in its knowledge.

22. That, with regard to observations at Para-D (V) (vi) (Page-41), the Answering Respondent Company submits that the meeting held in the office of DC, Tinsukia, between Baghjan Gaon Milonjyoti Yuba Sangha and officials of OIL on 18.09.2020 wherein the Respondent Company assured all possible assistance in mitigating the problems of the Baghjan Gaon Villagers and assured payment of Rs. 50,000/- per month to 612 families for rental accommodation, food and other facilities.

23. That, with regard to observations at Para-D (V) (viii) (Page-41), the Answering Respondent Company raises serious objections to the proposal of the DC, Tinsukia in revising the number of affected families and including additional 104 families in category (i) for compensation, which is without any solid justifications and basis. The Answering Respondent Company submits that the said impugned proposals of DC,

Tinsukia were made solely on the basis of demand made by Baghjan Gaon Milanjyoti Yuva Sangha, rather than any assessment of actual damage. The Deputy Commissioner, Tinsukia while submitting its illegal and arbitrary proposals before the Committee of Experts on sympathy, has made contradiction to its earlier communication dated 29.08.2020, whereby, the applicant was apprised about the identification of 57 families and 561 families of affected families under Category-ii and Category-iii on the basis of survey made by the District Administration and as such, impugned proposal of the Deputy Commissioner, Tinsukia being sympathetic consideration, as opposed to the actual assessment, is liable to be interfered by this Hon'ble Tribunal. It is submitted that Answering Respondent has already paid compensation as per the Order of the Hon'ble Tribunal. The compensation paid to the affected families are much higher than the standard compensation, as prescribed in the Assam Disaster Manual. A comparative study in this regard shows that the affected families have received substantial compensation, even though there was no substantial damages to their houses or horticulture, as it is evident from the photographs of some of houses, which fall under Category-II as per the earlier assessment of the Deputy Commissioner, but now categorized as Category-I by the Committee. A true copy of the photographs of a few affected families, which were earlier categorized as Category-II, but now put in Category-I as well as comparative study on the compensation. are annexed herewith and marked as Annexure-17.

It is further submitted that the inclusion of 104 additional families in the list of affected people without conducting any survey or new emergent facts reflects that name of the families were included without proper assessment, which warranting proper assessment through an independent agencies for all the affected families.

24. Further, it is submitted that Interim Order dated 06.08.2020 passed by the Hon'ble Tribunal, determining the quantum of compensation to various categories of the affected people based on the recommendation of the Committee of Experts has been complied by Answering Respondent Company immediately, which itself shows that Company is always ready to pay due compensation to the genuinely affected people, as per assessment in terms of the order of the Hon'ble NGT. But, since the impugned proposal made by the Deputy Commissioner, Tinsukia recommending inclusion of additional 104 families and upgradation of compensation amount, upgradation of the affected families, already assessed, from Category-III to Category-II and from Category-II to Category-I and enhancement of compensation of Category-II from RS.10.00 Lakh to Rs.20.00 lakh merely on the demands of the local organizations, are illegal and arbitrary. The Company though appreciate the suffering of the people of the Baghjan area on account of the unfortunate Blow out incident, but it cannot justify unrealistic and unreasonable demands, more particularly, in view of the facts, the Company deals with the public money.”

Applicant's response

17. The applicant has also filed response to the report dated 31.10.2020 as follows:

“7. It is further prayed that the final Report include a Restoration Plan which would be based on:

- i) comprehensive research as to the damage done not only to the Maguri-Motapung wetland and grassland system but also to the adjacent areas in the Dibru-Saikhawa National Park. The research could include a diagnostic evaluation of wetlands regimes (ecological, hydrological, socio-economic and institutional aspects) as well as consider forest – wetland interactions. Further, the effect of seasonal migration, such as the arrival and departure of migratory birds between now and March 2021, could be considered;*
- ii) analysis of not only current damage but damage extending over the future. For instance, the old and condensate deposits may affect the physical properties of the soil, reducing its aeration and water infiltration, subsequently affecting plant growth. Crude oil has toxic properties that could have a devastating effect at various levels of the soil;*
- iii) planning concerning interventions needed immediately and others that would be phased, those that would be man-made and others that would be left to natural restoration; besides obtaining inputs from the local community, the planning phase could include an international workshop (digital) inviting experts of riverine ecology and riverine wetlands to aid restoration planning. Since Maguri Beel is driven by flood pulses – understanding river – wetland – forest interactions would be core to designing any ecological restoration plan.*
- iv) implementation mechanisms – the institutions and the processes that would carry the restoration plan into the field and integrate interventions bearing in mind the multi-dimensionality of the eco- system being restored.*

8. In order that the Committee has sufficient resources to carry out its tasks of conducting research and analysis, and devising the plan and implementation mechanisms for restoration, it is prayed that this Hon'ble Tribunal to augment the financial and technical resources available to the Committee. In this regard, the Applicant humbly submits that:-

- i. It is submitted that just as the Committee has suggested the setting up of a “health fund” as an interim measure to defray the cost of treatment of person(s) suffering from any ailment etc. (at page 43 of Volume I of the Progress Report), in a similar manner, an interim fund be set up to provide*

funding for the research and analysis needed to establish the complete extent of impact on the environment and bio-diversity caused by the present disaster.

- ii. *In order to provide funding for the research and analysis, it is humbly prayed that the Tribunal recall the deposit of Rs 25 crore directed in the order dated June 24, 2020, but deferred in its order dated July 2, 2020, on the assurance given by OIL that whatever amount required for discharge of its liability would be made promptly available. The fund could be placed in the custody of the District Magistrate, Tinsuka District, and disbursed as per norms and requirement.”*

MoEF Response

18. We may also mention the affidavit of the MoEF&CC filed on 23.11.2020 by Mr. Dharmender Gupta with regard to the regulatory framework in terms of Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 (MSHC Rules, 1989) and Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996. It is stated that the PESO and CIFs while giving site specific approvals are expected to ensure preparation of on-site emergency plans and details of mock drills and standard operating procedure (SOP) of industrial operations.

Consideration of the matter by the Tribunal

19. **We place on record our appreciation for the massive work executed by the eight-member Committee, headed by Justice B.P. Katakey, former Judge of Gauhati High Court.**

Issues for Consideration

20. We have given due consideration to the reports of the Committee dated 31.10.2020 and 10.12.2020 as well as to the objections of the OIL and of the applicant and heard learned Counsel for the appearing parties.

There are four aspects for consideration:

- a) **Compensation to the victims of the incidents for the damage to the houses, trauma, loss of earning and health cost incurred etc.**
- b) **Accountability for the failure of OIL to follow safety protocols in preventing the incident and remedial steps to prevent such incidents in future**
- c) **Accountability for non-compliance of statutory norms under the Water, Air and Environment laws and remedial action**
- d) **Assesment of damage to the Environment and restoration measures, including measures for restoration of Dibru-Saikhowa National Park and the Maguri-Motapung Wetland**

Observations and Findings

21. On consideration of the entirety of the matter, we are in agreement that further studies are required for assessment of damage to the environment and the restoration measures by an inter-disciplinary Committee. Accordingly, we propose to appoint an expert Committee for the purpose. The issue of compensation stands sorted out substantially. The remaining aspects of remedying the causes leading to the incident and statutory compliance will require further consideration by the statutory and departmental authorities in the first instance for which we propose to appoint joint Committees. Our observations and directions on different aspects follow.

Re: a) Compensation to the victims

22. We note that the incident in question is a massive one as the blowout resulted in fire which continued for almost six months inspite of efforts of all the Experts, hired by the OIL. Well killing operations, to avoid further damage, have taken more than six months. The damage caused is extensive. The statistics furnished by the OIL itself are that 3000 families were affected and 9000 persons were displaced from their houses and accommodated in 12 relief camps. 10 relief camps were set up as a result of first incident dated 27.05.2020 and two more camps after the incident

dated 09.06.2020. Each camp had 750 persons. Though number of claims were put forward, **major part of the issue stands resolved in terms of tri-partite arrangement between the victims, the OIL and the Deputy Commissioner, as per letter of the Deputy Commissioner dated 25.9.2020 and letter of the OIL dated 2.12.2020. The OIL has admitted its liability to 600 families to the extent of Rs. 15 lakhs each for 161 families and Rs. 10 lakhs each to the 439 families which runs to about Rs. 68 crores. It has already paid Rs. 30,000/- each to 3000 persons i.e. Rs. 9 crores and Rs. 12 lakhs each to 11 families i.e. Rs. 2.2 crores. Further, Rs.50000/- each has been paid to the families who have left the camps to meet the cost of rent, food etc. According to the OIL, it has spent about Rs. 11 crores on the camps and also incurred expenditure on managing the blowout which is said to be about Rs. 151 cores.**

23. While the Committee has suggested payments towards compensation to be treated as interim, the OIL does not accept any further liability. **In view of substantial number of victims having been compensated upto a reasonable level, the issue will have to be taken as concluded as far as the present proceedings are concerned.** This Tribunal cannot enter into further adjudication in absence of the victims and authentic data. **While floor level compensation can be directed to be paid even on some guesswork, higher compensation claims require adjudication, based on evidence of loss. As already observed, in absence of relevant data, we are unable to determine the claims for higher compensation, beyond the amounts already paid or conceded by the OIL.**

24. The principle of absolute liability is attracted to such incidents in accordance with law laid down in *M.C. Mehta v. Union of India & Ors.* (1987) 1 SCC 395 and thus the victims are entitled to compensation atleast on principle of restitution without proving negligence. However, evidence of extent of loss suffered by each of the claimant is required, except for some sort of compensation to be awarded by applying rule of thumb. To this extent compensation appears to have already been paid during these proceedings with the intervention of the Committee and the authorities. Thus, while requiring the OIL to pay whatever compensation is undisputed forthwith, we propose to leave the rest of the matter to be decided in appropriate remedies of the victims. However, we propose to lay down mechanism to deal with some of the issues emerging from the report of the Committee. **It is made clear that this order will not debar any victim of the occurrence who is aggrieved by denial of compensation or inadequacy of compensation to take remedies for such claim before any appropriate forum in accordance with law.**

Re: b) Accountability for failure to follow safety protocols and remedial measures to prevent such incidents in future:

25. The Committee has prima facie found the concerned officers of OIL responsible for their failure in preventing the incident, as safety protocols were not duly followed. The OIL has pleaded its innocence and shifted the liability to the Contractor. It is stated that some action taken against the contractor (debaring for two years). **The fact remains that the OIL cannot disown its responsibility by shifting the blame on the contractor. Since it is not found necessary to finally determine this issue by the Tribunal, the same is left open to be gone into in any other appropriate proceedings – departmental or judicial.**

26. We prima facie agree with the report of the Committee that there was failure of the OIL in taking safety precautions and there is need for ensuring that such incidents do not recur. **We direct this aspect to be gone into by a six-member Committee headed by the Secretary, Ministry of Petroleum and Natural Gas in consultation with the D.G. Hydrocarbon and D.G. Mines Safety, DG Oil Industry Safety and PESO, Chief Controller of Explosives, New Delhi within three months from today.** The said Committee may review the situation and take appropriate remedial measures, including fixing responsibility for the failures of the concerned individuals in the present incident. It may also lay down the road map for ensuring compliance of safety protocols by all similar installations. Effective execution of such road map may be ensured by the Secretary, Ministry of Petroleum and Natural Gas. The Committee may also suitably take into consideration the observations in the reports of the Committee appointed by this Tribunal.

Re: c) Accountability for non compliance of statutory norms under the Water, Air and Environment laws and remedial action

27. The Committee has found that there are non-compliances of statutory provisions of the Air Act, Water Act, the EP Act, including the Hazardous Waste Rules, framed thereunder, the requirement of EC in terms of Notification dated 14.09.2006 and compliance of EC conditions. OIL has submitted its stand disputing the findings of the Committee. **We direct that the issue of accountability for the past compliances and the remedial action therefor be looked into by a seven-member joint Committee comprising MoEF&CC, CPCB, State PCB, SEIAA Assam, Chief Wildlife Warden, Assam, Member Secretary, Biodiversity Board, Assam and Member Secretary, State Wetland Authority Assam.** MoEF&CC will be nodal agency and the Committee may complete its work

within three months. The gaps identified may be duly addressed by the OIL which may be overseen by the statutory regulators. The Committee may also suitably take into the observations in the reports of the Committee appointed by this Tribunal.

Re: d) Assesment of damage to the Environment and restoration measures, including measures for restoration of Dibru-Saikhowa National Park and the Maguri-Motapung Wetland

28. Last aspect is assessing the damage to the environment and remedial restoration plan, including Dibru-Saikhowa National Park, the Maguri-Motapung Wetland. **We direct this aspect to be looked into and remedial measures planned by the ten-member Committee headed by the Chief Secretary, Assam, nominees of MoEF&CC and CPCB, Assam Wetland Authority, State Biodiversity Board of Assam, SEIAA Assam, State PCB (all through their Chairmen), Chief Wildlife Warden Assam, District Magistrate, Tinsukia, and Managing Director, OIL.** This Committee will also take over the available record and data from the Committee constituted by this Tribunal, headed by Justice Katakey and **deal with all surviving issues** as far as possible within six months. **As regards budgetary allocation for the restoration work,** the cost of restoration is to be born by the OIL. **The Committee headed by the Chief Secretary, Assam may make an estimate on which the OIL will deposit the amount so estimated to meet the cost of restoration of the environment.** Initial deposit will be on adhoc estimation of minimum amount required and any further amount becomes necessary for execution of work for restoration, as may be finally determined by the ten-member Committee, such further deposit will be made by the OIL. The restoration plan may be duly executed by the OIL which may be overseen by the concerned statutory regulators. **The OIL may forthwith pay the honorarium payable to non-official members of the Committee**

constituted by this Tribunal which may also be ensured by the Chief Secretary, Assam who may determine the amount payable, if the issue needs any clarification.

29. All the above Committees will be free to co-opt any other Expert or institution. The applicants or any other stake holders are free to give their respective suggestions, if any, to the above Committees. The Committees may hold their first meetings preferably within two weeks which may be ensured by the Secretary of MoPNG, the Secretary of MoEF&CC and the Chief Secretary, Assam respectively.

30. **A public notice of crux of the order may be given at a prominent place in the office of the District Magistrate, Tinsukia and at some prominent place near the Campus of the Establishment in English as well as in Assamese. This may be ensured by the District Magistrate, Tinsukia.**

The application is disposed of.

A copy of this order be forwarded to the **Secretary, Ministry of Petroleum, MoEF&CC, CPCB, Chief Secretary, Assam, D.G. Hydrocarbon and D.G. Mines Safety, DG Oil Industry Safety, PESO, Chief Controller of Explosives, New Delhi, State PCB, SEIAA Assam, Chief Wildlife Warden, Assam, Member Secretary, State Biodiversity Board, Assam and Member Secretary, State Wetland Authority Assam, District Magistrate, Tinsukia and Managing Director, OIL**, by e-mail for compliance.

A copy of this order be also forwarded to Justice B.P. Katakey, former Judge of Gauhati High Court, Member Secretaries of State Legal

Services Authority, Gauhati and District Legal Services Authority,
Tinsukia by e-mail.

Adarsh Kumar Goel, CP

S.K. Singh, JM

Dr. Nagin Nanda, EM

February 19, 2021
Original Application No. 43/2020(EZ)
DV