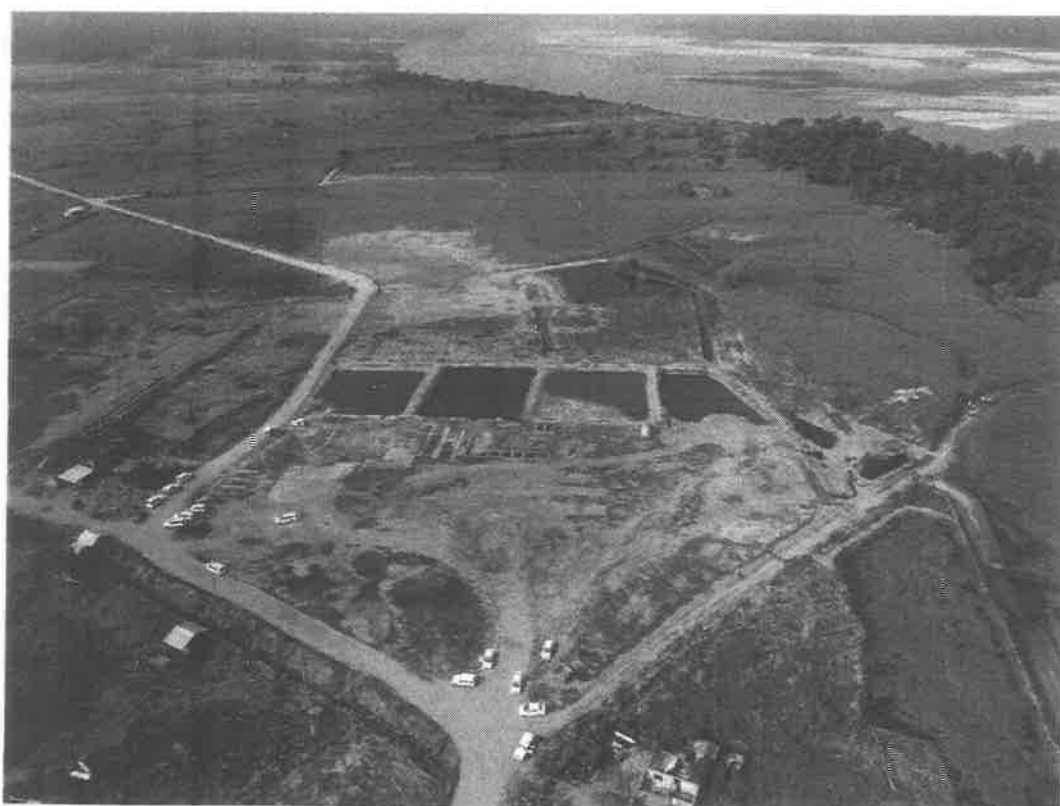


BAGHJAN WELL # 5 BLOWOUT

**Damage Assessment and Restoration Plan of
Dibru Saikhowa National Park**

And

Maguri-Motapung Wetland



INTERIM REPORT TO THE SUPREME COURT OF INDIA

October 20, 2021

Committee Constituted by Hon'ble Supreme Court
Vide Order of September 2, 2021 in Civil Appeal No. 2201/2021

Dedication

This report is dedicated to the persons and numerous species which perished or were affected by the Baghjan Well # 5 blowout incident in the hope that the recommendations herein will help minimize the risk of such disasters ever happening again.

Acknowledgement

The Committee wishes to acknowledge the participation of the individuals and organisations, Government officials and agencies alike for offering their views and insights. The Committee also expresses gratitude to all the experts, scientists, nature enthusiasts and the local people who have participated in deliberations held through virtual and/or in-person meetings. The Deputy Commissioner, Tinsukia, the Superintendent of Police, Tinsukia and officials of the Environment and Forest Department, Government of Assam are thanked for their support and cooperation.

Baghjan Well # 5 Blowout

Damage Assessment and Restoration Plan of
Dibru Saikhowa National Park
and
Maguri-Motapung Wetland

Interim Report to the Supreme Court of India

Committee Constituted by Hon'ble Supreme Court Vide Order of September 2,
2021 in Civil Appeal No. 2201/2021

October 20, 2021

Committee Members



Justice B.P. Katakey



Dr. Ritesh Kumar



Mr. G.S. Dang



Mr. Qamar Qureshi



Mr. Bedanga Bordoloi

Abbreviations

BGN#5: Baghjan Well No. 5

CoC: Contaminants of Concern

CSM: Conceptual Site Model

DDMP: District Disaster Management Programme

DFO: Divisional Forest Officer

DSBR : Dibru Saikhowa Biosphere Reserve

DSNP: Dibru Saikhowa National Park

EDC : Eco Development Committee

MMW: Maguri-Motapung Wetland

MoEF&CC: Ministry of Environment, Forest and Climate Change

OIL: Oil India Limited

PAHs: Poly Aromatic Hydrocarbons

PCBA: Pollution Control Board, Assam

RTC: Remedial Target Criteria

SOP: Standard Operating Procedures

WII: Wildlife Institute of India

Table of Contents

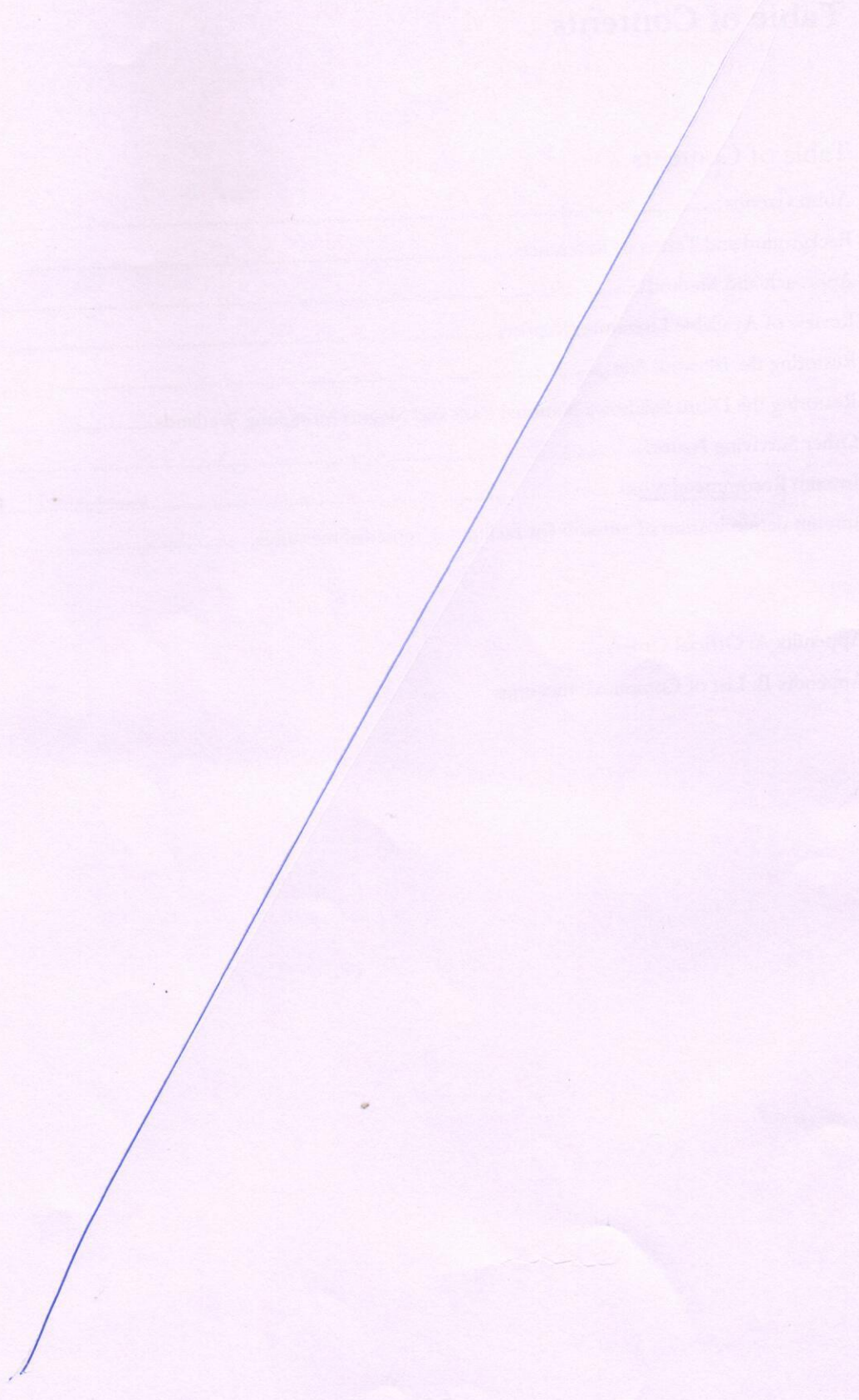
Table of Contents

Abbreviations	5
Background and Terms of Reference.....	8
Approach and Method	8
Review of Available Literature/Reports	10
Restoring the Blowout Site	12
Restoring the Dibru Saikhowa National Park and Maguri Motapung Wetlands.....	16
Other Surviving Issues.....	29
Interim Recommendations	31
Interim determination of amount for facilitating remedial measures.....	32

Appendix A: Official Orders

Appendix B: List of Committee meetings

Table of Contents



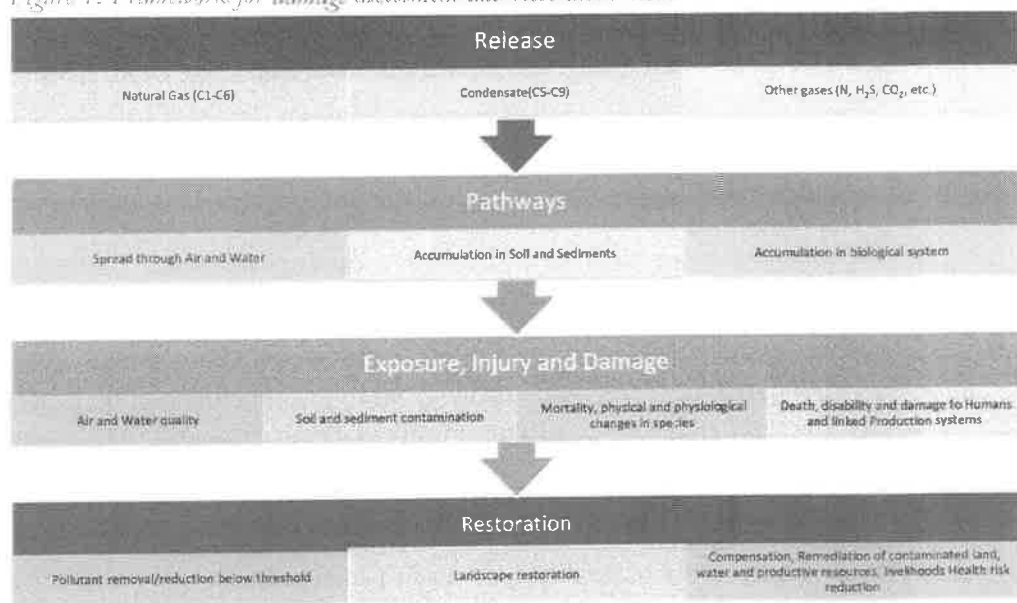
Background and Terms of Reference

1. A “Blowout” occurred at Baghjan Well # 5 (BGN#5) of Oil India Limited, Duliajan, Assam (OIL) on May 27, 2020, followed by fire/explosion on June 9, 2020. As a consequence of which damage and destruction was caused to the Dibru Saikhowa National Park (DSNP) and Maguri-Motapung Wetlands (MMW) both forming a part of Dibru Saikhowa Biosphere Reserve (DSBR).
2. The Hon’ble Supreme Court of India vide its order dated September 2, 2021 (of Civil Appeal No. 2201/2021) constituted a five-member Committee to assess the damage to and restoration of DSNP and MMW. Besides, the Committee was to take over all surviving issues from the earlier Committee. The Committee has been directed to make an interim determination of the damages within a period of one month so that a suitable direction be issued by the Hon’ble Supreme Court to OIL to deposit an amount for facilitating remedial measures.
3. The Committee has also been given the liberty to recommend other interim remedial measures and suggest final remedial measures in the course of its eventual report, which is to be submitted within three months. To facilitate the smooth functioning of the Committee, the Hon’ble Supreme Court directed the Ministry of Environment, Forest and Climate Change (MoEF&CC), Government of India, to depute a nodal officer.
4. MoEF&CC subsequently vide office order dated September 14, 2021 informed the members of the Committee about the appointment of the nodal officer from Wildlife Institute of India (WII), Dehradun, India. The Committee however, initiated its work immediately on receipt of the order of Hon’ble Supreme Court.

Approach and Method

5. The overall approach of the Committee is guided by the ‘do no harm’ principle to ensure proper assessment of the damage caused to DBSR and its eventual restoration. The generic framework of enquiry for assessing the damage is presented in Fig. 1 below:

Figure 1: Framework for damage assessment and restoration needs



6. The Committee used the following data sources:
- Ecological data and observations from DSBR
 - Photographs and other direct observations of contaminants at site as reported in various studies and reports
 - Satellite data
 - Data from analysis of samples of air, water, sediment and soil
 - Data collected on noise and thermal pollution
 - Information collected from site visits (Fig. 2) and consultations

Figure 2. Location of Site Visits by the Committee on October 9, 2021



Review of Available Literature/Reports

7. Various committees appointed for the purpose submitted their investigations/study reports to concerned authorities covering the period generally up to July 2020. Most of these committees recommend that a comprehensive impact assessment be carried out after the fire extinguishment.
8. Based on the selective interpretation of the study reports, OIL initiated recovery and bio-remediation work on some selected contaminated land and water sites in the vicinity of blowout i.e., BCN#5. Though a few sites in the affected area(s) have been remediated, but the main area in and around the blowout site was left untouched till the date of visit of the Committee (October 9, 2021).
9. The Committee made the following observations during site visit wherein the representatives of the District Civil and Police Administration, Tinsukia; Environment and Forest Department, Government of Assam; Pollution Control Board, Assam (PCBA) and OIL were also present:
 - a. The capped well was buried and not visible
 - b. Significant part of the site visited were found to be visually contaminated
 - c. The area around the well had been roughly dressed up
 - d. Significant quantities of hazardous wastes like asbestos pieces were found scattered on the blowout site and mixed with backfilled material
 - e. The site had effluent pits closer to the well which were found filled with blackish water and oily sludge
 - f. There being no boundary, people, poultry and cattle herds were noted roaming around freely. Substantive grazing was also observed
 - g. None of the purportedly remediated sites visited by the Committee had any signboard or enclosures
 - h. The entire site was unguarded, thereby posing health hazard not only to humans, but also to the livestock and birds
10. A Committee of Experts, under the chairmanship of Justice B.P. Katakey, was constituted by the Hon'ble National Green Tribunal, Principal Bench, New Delhi in the matter of O.A. No. 43 of 2020 (EZ) and O.A. No. 44/2020(EZ) vide order dated July 2,

2020. The Committee's mandate was to investigate the cause of gas/condensate leak, extent of loss and damage caused to human life, wild life and environment, contamination of air, water and soil of the area of well and its vicinity etc. Based on the preliminary assessment, the committee submitted its report detailing its findings, on well BGN#5 blowout and subsequent explosion/fire which led to extensive damage to both the publicly owned resources including the MMW, DSNP, the eco-sensitive zone including the water bodies, air, wildlife and the natural resources surrounding it. Additionally, the Committee tried to assess harm and damage to privately owned property of the survivors in the affected villages. The Committee recommended some interim measures including compensation for the affected families and individuals. For restoration of DSNP and MMW the Committee felt that it was necessary to set up/induct a multidisciplinary team comprising community members along with experts on wetland ecology, hydrology, fisheries, water birds' specialists and others. The said report also consists of attachments/annexures e.g. reports of WII, show-cause notices, reports of district administration, list of affected families etc.

11. Another report which is in quite detail is of Mr. M.K. Yadav, IFS, Additional Principal Chief Conservator of Forest (Wild Life) & Chief Wildlife Warden; One-man Committee constituted by Government of Assam. The report is produced in 3 volumes. Volume 1 of the said report is in two parts (Part I & II). Part I details out OIL's Baghjan oil field, oil and gas production in India, laws and policies. Part II covers blowout at BGN#5; details on flame temperature, height, acoustic power, chemical composition of natural gas and condensate and their chemical characteristics, atmospheric pollution, noise pollution and vibrations, thermal pollution, soil and water pollution, assessment of biodiversity loss, assessment and impact on avifauna, dolphins and other mammals, fishes, herpetofauna, arthropods, impact of blowout on local population, livestock, crops and on other properties. Losses/damages (countable and uncountable) are detailed in the end along with conclusions drawn. Volume 2 of the report is the compilation of all the secondary material upon which Volume 1 is based. Volume 3 consists of public hearing notices, letters issued from one man committee, replies received, reports submitted by Divisional Forest Officers (DFOs), OIL and annexures.

Review of information made available to the Committee by OIL

12. OIL has taken some measures to collect the oil, disperse it, and reduce human exposure and injuries to natural resources. Following are the observations of the Committee:

- a. No containment measures were taken to avoid spread of condensate spill. This was also confirmed by the OIL and its bio-remediation contractor during the interaction on October 10, 2021 at Dibrugarh. However, subsequent email communication with OIL reveals that there were other contractors who were involved in immediate response process. The Committee is reviewing these evidences at the time of writing this interim report.
- b. Backfilling of effluent pit using contaminated material (mixture of construction debris, burnt vegetation and asbestos) were observed in and around the blowout area. These features need to be characterized and remediated.
- c. The emphasis of an agency engaged by OIL for improving agricultural productivity through application of chemical fertilizers and pesticides is misplaced in the context of the blowout. The post blowout situation is not only a problem of productivity but also of soil and groundwater contamination. No attempt was made to trace the Contaminants of Concern (CoC) in any part of the affected landscape by the said agency.
- d. The Committee was surprised to note the inadequacy of infrastructure and human resources even in the government agencies like PCBA entrusted with the responsibility of enforcing pollution related regulation.

Restoring the Blowout Site

13. BGN#5, as per the information in writing furnished by OIL is situated over a plot of land measuring minimum of 27.55 bighas (about 37,000 square metres). The said land, according to OIL, belongs to them by right of purchase from the land owners.
14. OIL issued a work order (6114478/PDNO/2020) to a bio-remediation contractor on August 19, 2020, for bio-remediation services of contaminated soil/water bodies, oily soil and oil contaminated water bodies due to oil spillage resulting from blowout of BGN#05.
15. In discussions with OIL's bio-remediation contractor, the Committee learnt that the bio-remediation plan had not been implemented in MMW and the drilling pad area and there is also a lack of clarity on way forward. A review of the authorized clean-up report signed by OIL and the bio-remediation contractor has several weaknesses, key being:

- a. Possible errors in volume estimation of contaminated soil and water
 - b. Inadequate site characterization and baseline assessment (inadequate sampling, lack field log books, lack of photographs of soil profile etc.)
 - c. Report does not include the Conceptual Site Model (CSM) or a model describing the geohydrology and geographical distribution of the contaminants
 - d. Report does not include a delineation of the contaminants still present at the site
 - e. Assessment of pathways, exposure, impacts and contamination, site classification is missing
 - f. Screening and Response Levels are not clearly stated for all media tested
 - g. No mentioning of waste or rubble encountered during sampling
 - h. Site-specific remedial objectives for contaminated soils and/or groundwater and protection of aquatic environment not established
 - i. Description of the post remediation measures not provided
16. The bio-remediation contractor has admitted non-performance of any bio-remediation/site restoration activities on the blowout site (categorized as Heat Zone in their final report).
17. The Committee is of the view that despite measures taken, the site still has hazardous constituents posing health risks to the people and animals living in and around.
18. The Committee, therefore, recommends following interim remedial measures to be taken by OIL urgently:
- a. Cordoning off the entire site by installing appropriate fencing and signboard
 - b. Characterization of the probable contaminated site following appropriate sampling strategy (atleast one composite sample per 500 m²)
 - c. Pursuing a risk-based clean-up approach (Fig.5), engaging best available remediation technology to bring down the level of contaminants
 - d. The existing pits/effluents pits after being remediated needs to be backfilled with clean soil and regraded and compacted to the original ground level.
 - e. Restoring the site using appropriate measures as per restoration plan along with joint monitoring of the sites by PCBA and District Administration

- f. Conducting public awareness and training regarding risk reduction related to oil and gas exploration
- g. Maintaining greenery at the site using native species, after satisfactory achievement of site-specific Remediation Target Criteria (RTC) assessed via post-remediation sampling strategy
- h. Evaluating likely contamination, without any further delay, on all existing crops, biomass and livestock based products; and appropriately regulating harvest, sale and consumption of unsafe products, alongwith monetary compensation to producers as may be required
- i. Managing construction debris, piping and related material (hazardous wastes) etc. in accordance with extant Hazardous Waste Management Rules.

Figure 3. Human and Livestock movement at the unguarded contaminated site

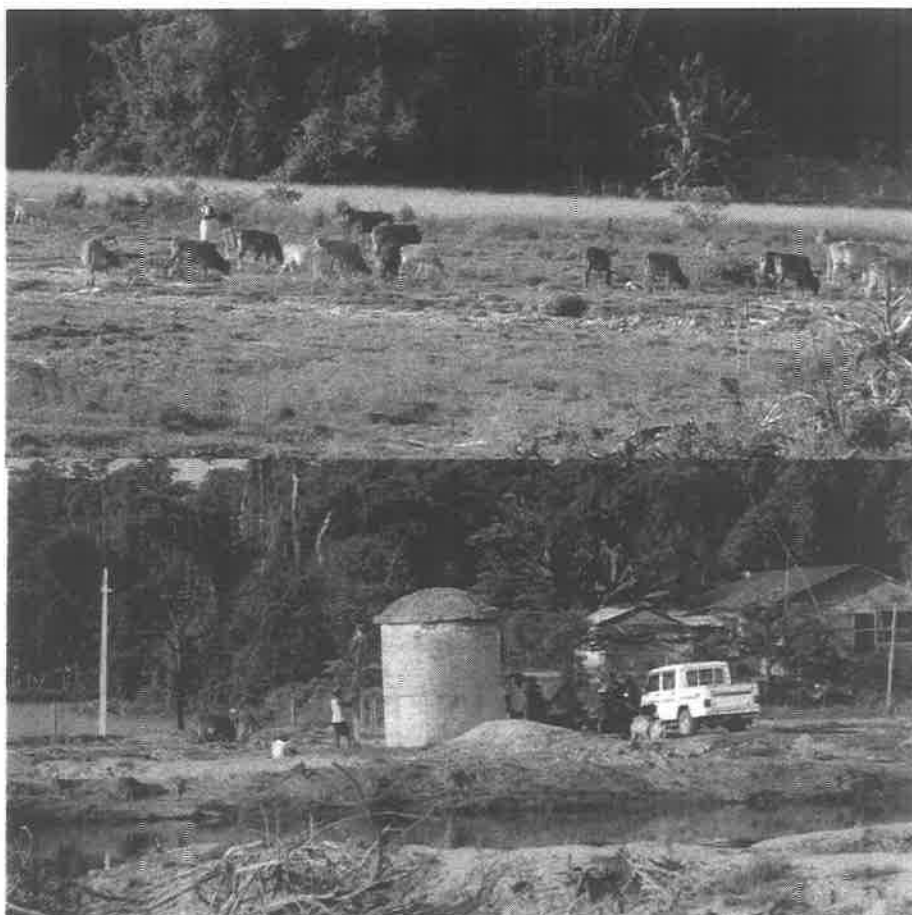
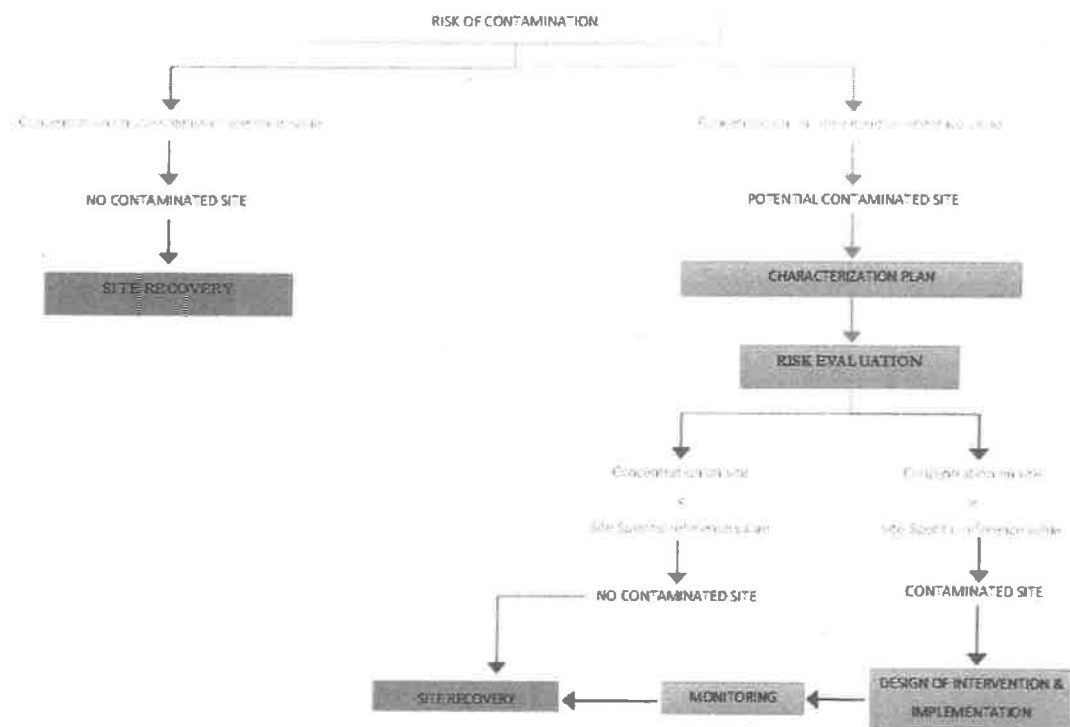


Figure 4. Effluent pits near BGN#5 with oily sludge and construction debris



Figure 5. Risk based Clean-up approach



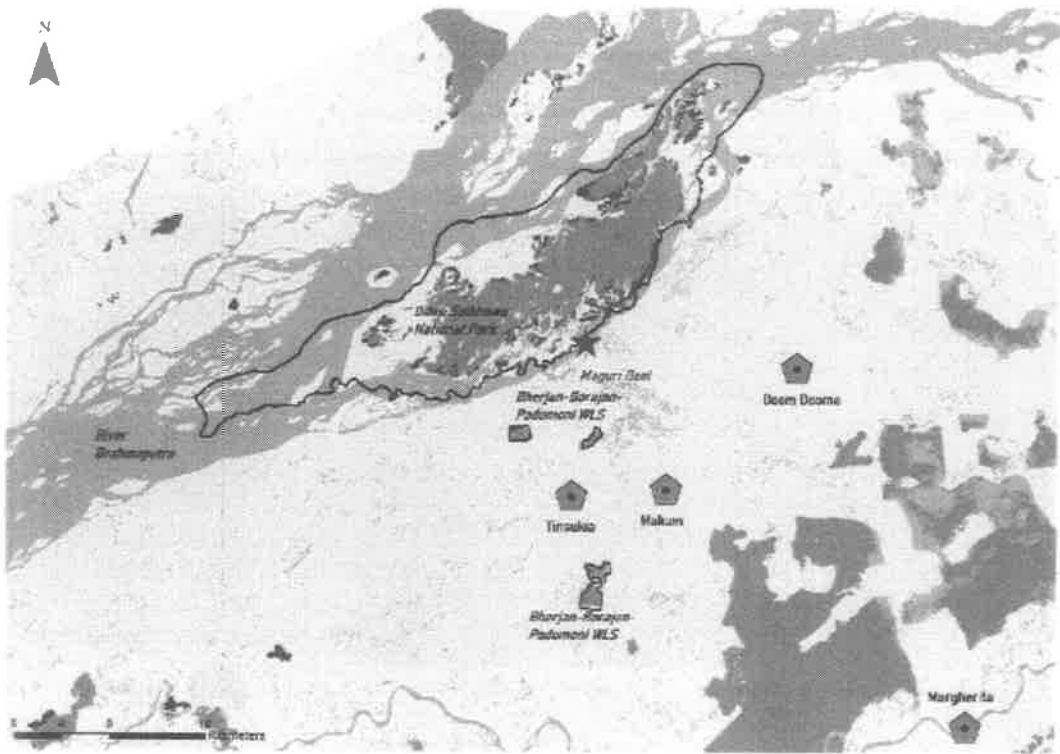
Restoring the Dibru Saikhowa National Park and Maguri Motapung Wetlands

19. The DSBR is located in Tinsukia and Dibrugarh Districts of Assam, India, with a small part of the Buffer Zone in Dhemaji District. The DSBR spans 765 km², including DSNP as its core area (spanning 340 km² in Dibrugarh and Tinsukia Districts) and surrounding River and fringe villages forming a buffer of 425 km². The DSNP is basically a floodplain of the River Brahmaputra (Fig. 6&7). The area lies in the Indo-Burma Global Biodiversity Hotspot and the Assam Plains Important Bird Area. Bio-geographically, DSNP represents the North Eastern India – Brahmaputra Valley Biogeographically province (9A), having rich diversity of life forms adapted to terrestrial, aquatic and arboreal ecosystem. The terrain of the park is flat and it is situated in the floodplains of the River Brahmaputra and River Lohit. Other rivers that traverse along the park are the

Dibru and the Dangori and others. The DSNP is home to several species, including 36 mammals, 11 turtles, 18 lizards, 104 fishes, 23 snakes, 165 butterflies and nearly 500 bird species (DBSR Management Plan 2019-2024). The Brahmaputra River and the park serve as habitats of the Indo-Gangetic Dolphin. In winter, the dried up river-bed and the sandbar (locally called *Char Chapori*) support grasslands which are an excellent habitat for the critically endangered bird Bengal Florican, while also serving as migration route for the elephants in the Dibru-Dangori Elephant Corridor; and even tigers. This area is identified for Rhino reintroduction in Rhino vision 2021 of Assam, its crucial part for elephant conservation, Bengal florican and white winged wood duck was reported from this area and need appropriate management to bring back these species which are highly endangered. This area also forms crucial link and staging ground for East and Central Asian Flyway identified for migratory bird species. This is unique habitat in the world and very little is left in India and need immediate attention for conservation.

20. Located to the south of the DSNP (and within the DSBR), the MMW spans 15 km² constituting a mosaic of shallow marshes and swamps, intermittently inundated areas, wet grasslands and drainage channels. The name of the wetland is believed to have been derived from abundant catfish *Clarius Batrachus* (called Magur in Assamese) found here. Various records indicate presence of up to 57 macrophyte, 23 aquatic insects, 84 fish, 26 mollusc, and 118 bird species in the wetland (MMW Management Plan 2018-2022), several of which have high conservation value nationally and globally. MMW has been enlisted as an Important Bird Area on account of its significance in sustaining the avian diversity of the landscape. The wetland forms a part of the Indo-Burma Global Biodiversity Hotspot and is within the eco-sensitive zone of the DSBR. The fish, plant and fodder resources and opportunities for recreation and tourism from the wetland sustain livelihoods of at least ten adjoining villages of about fifteen thousand people, besides being an important cultural icon of the region. The flood buffering, water purification and groundwater recharging capacity make MMW a critical natural asset for the entire landscape.

Figure 6. Dibru Saikhowa National Park as well Biosphere and other protected area in the vicinity of Baghjan Site (WII Report)



[Handwritten mark]

Figure 7. Maguri Motapung Wetlands in relation with the Baghjan Baghjan Accident Site (Map developed using Sentinel 2 MSI Image of June 9, 2020)

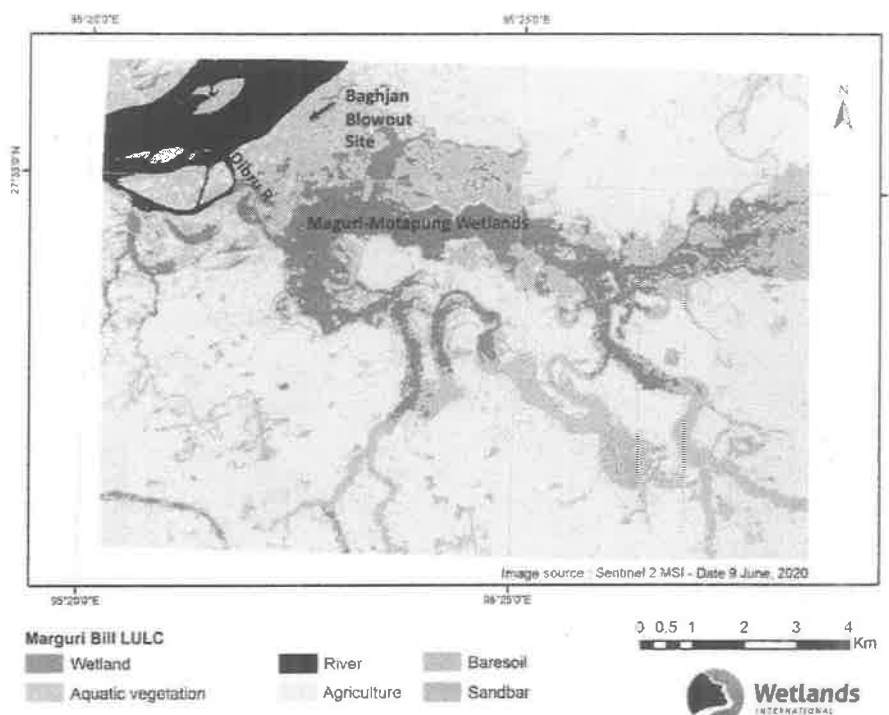


Figure 8. Land use/ Land cover map of Baghjan Area

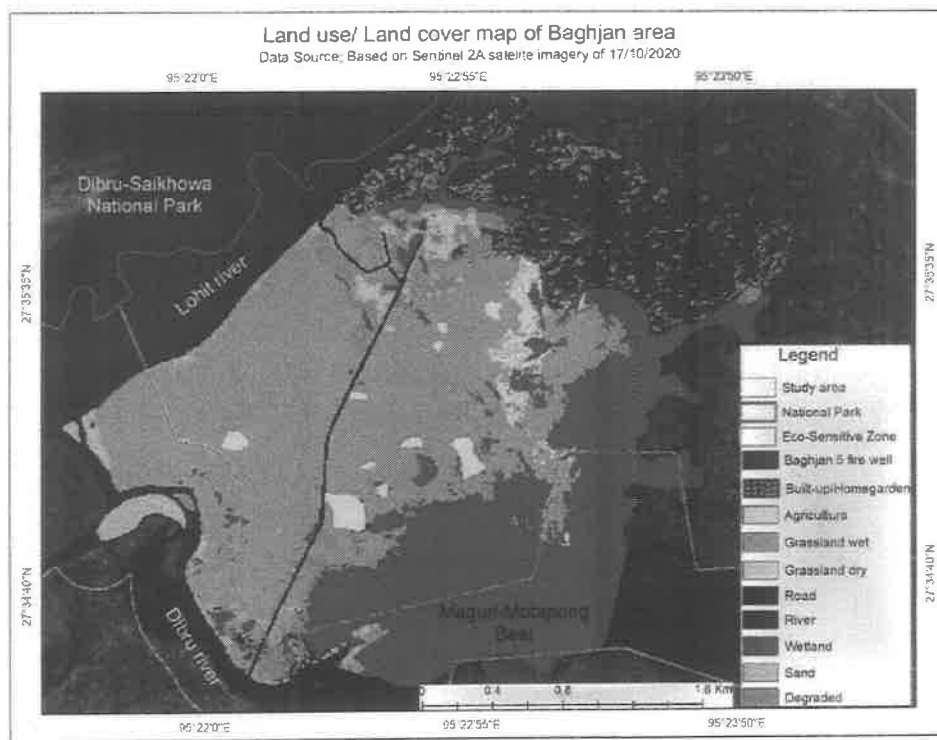


Figure 9. Fishers in Maguri Motapang Wetlands



Figure 10. Operational Oil drilling site in the vicinity of MMW



The Baghjan Oil Flare incident and impact on wetland and surrounding forest area

21. The MMW is located around ~ 300 m from BGN#5. Owing to its close proximity to the accident site, major parts of the wetland were subject to oil spill and condensate deposition, burning, sound pollution, high temperature and burning, seismic activities, and high concentration of toxic aerosols. Assessments done by WII and the DFO (Tinsukia) post-accident have extensive documentation on evidence of fish diseases and mortality, dolphin mortality, reduced sightings of several wetland species, and vegetation burning. Studies suggested toxic PAHs in water, soil sediments and fish tissues. These PAHs are of origin from oil condensate spillage and some of them are carcinogenic, affect physiology of animals and reduce immunity. The wetland oxygen level declined during the time of accident resulting in large scale impact on aquatic life. The loud sound which is way above the prescribed limit even of industrial level is known to affect wide ranging species including humans. Community representations made to the committee included drastic reduction in fish catch, dip in ecotourism revenues and several impacts on health, besides loss and damage of assets.
22. Discussions with the officials of OIL, Forest Department confirmed that no effort was made to remove condensate from the MMW. A review of the scope of work for bio-remediation also indicates that the wetland area was excluded from the assignment, and the fact that no agency was approached to tackle this problem is also indicative of lack of intent of those concerned.
23. The entire region has been subject to several flood pulses (up to-seven) since the incident, and thereby it is likely that parts of the pollutants have even been washed downstream (especially from the channels wherein flows are relatively higher, and towards the Dibru River). Yet, in all likelihood, the condensate which was deposited on the vegetation may have continued to persist, and found their way into sediments, and as well as become part of the bio-geochemical cycles of the wetland ecosystems. The committee was not made aware of any study, dataset or monitoring of different components of wetland water, sediments and vegetation which indicated otherwise. As a matter of fact, no systematic tracing of the pollutants released from the accident was done within the wetland, not an attempt made to understand their ultimate fate.
24. The wetland has a high livelihood dependency, with communities harvesting fish, molluscs and vegetables for home consumption as well as for sale. It is therefore critical

to ensure that these products are safe to consume. Surprisingly, the Committee was not informed of any such assessment. Nor has any study been done to systematically assess the damage to wetland dependent species-despite the studies done by WII and Forest Department providing ample evidence of the same.

25. The forest area adjacent to accident site is within the zone of influence of condensate but no information is available on its impact on vegetation and animals in this region.

Overview of current management and monitoring mechanisms

26. Being a part of the DSBR, the DFO (Tinsukia) serves as the nodal officer for MMW, while within the District, the District Commissioner is responsible for the overall health and upkeep of wetland environment.
27. The Committee was provided with a copy of the MMW Management Plan (2018-2022) which has been prepared by the Office of the Deputy Commissioner. The plan has been prepared with a vision to restore and maintain near-natural condition of the MMW, while ensuring the sustainable supply of ecosystem goods and services for local people. The plan envisages activities for implementation in the permanent wetland area, flood affected area, and within human habitation around. A District Level Coordination Committee with Divisional Commissioner (Tinsukia) as Chairperson, and representation of Zila Parishad, Agriculture, Fishery, Veterinary, Handloom, Social Welfare, District Rural Development Agency, Forest, Tea Board and local communities.
28. DFO also provided the management plan of DSBR (2019/20 to 2023/24). DSBR has received funds (from Centrally sponsored schemes, Project Elephant, 12th Finance Commission, District development plan and non-plan) which varied from Rs 22.06 lac to 157.93 lac between 2011 to 2021, on an average they received Rs 83.34 in this period.
29. DSBR has following management objectives
- a. To ensure the persistence of existing wildlife through enhanced protection and habitat management
 - b. To work in tandem with all stakeholders for successful rehabilitation of Laika and Dadhia Forest Villages outside the core area
 - c. To ensure a highly dedicated and motivated workforce through capacity building and adoption of suitable welfare measure

- d. To promote Eco tourism in a regulated manner so as to augment local livelihoods
 - e. To foster the spirit of continued research, especially experimental research to in order to avail scientific inputs for the park
 - f. To organize buffer folk so as to achieve consensus in implementation of eco development initiatives with the aim of reducing pressure on the core
 - g. To involve local fringe area villagers with the network under umbrella of Eco Development Committee (EDC)
30. Plan recognizes inadequacy of funds and staff and thus its inability to effectively manage Biosphere Reserve. There is very little scientific research available and plan has not envisaged any funding for applied research for its effective management. There is an urgent need to do so. Two villages Dadhia and Laikia which have been identified as having maximum impact are identified to be relocated but the process is yet to begin due to lack of funds. The protection infrastructure is inadequate, training of staff for wildlife is nonexistent. The area is dynamic due to floods and current development around it but management has not identified the issues and mitigation appropriately. Oil and gas well operation have hardly any mention nor there is any plan to deal with pollution or any accident.
31. In discussions with Deputy Commissioner, the Committee was disheartened to learn that the MMW management plan had not been implemented, and there is also a lack of clarity on its formal approval. The Committee was further surprised to find no budget or financial plans being part of the plan. Ideally, all wetlands management plans are supposed to be proposed to and approved by the State Wetlands Authorities (in this case Assam State Wetlands Authority). The plan period is nearing expiration (2022), and has several weaknesses, key being:
- a. Wetland area and its catchment has not been demarcated, and thus maps do not render spatial planning
 - b. Baseline assessment on hydrological regimes, especially the flood pulses and connectivity with the river have not been carried out
 - c. Measures for ecosystem conservation are of cursory nature. The plan does not suggest the ways in which the intrinsic values of the wetland will be conserved
 - d. Management objectives and outcomes are not clearly stated, and no performance indicators have been suggested

- e. There is an over-emphasis on economic activities, making the plan very development orientated, underplaying conservation outcomes
 - f. Monitoring mechanisms, indicators, systems and arrangements are defined very rudimentarily
32. The existing mechanisms for monitoring of MMW are largely non-existent. Data on water chemistry reported by the PCBA is based on a single sample collected monthly. This is grossly inadequate, given that the wetland is a mosaic of diverse habitats (such as open water, vegetated, lentic and lotic conditions), and a single datapoint is thereby misleading. Upon discussion with the Pollution Control Board officials, the Committee also learnt that the organisation does not have the required capacity and infrastructure to monitor the pollutants released in the accident.
33. Under the provisions of the Wetlands (Conservation and Management) Rules, 2017, it is required that the area of wetlands and its zone of influence is properly demarcated, and a notification of activities prohibited, regulated and permitted within the wetland is specified following a due process of notification. This has not been complied with, and wetland regulation completely overlooked.
34. As per the provisions of the Disaster Management Act, 2005, each District is required to have a District Management Plan, with the District Disaster Management Authority (under the Chairmanship of the District Collector) as the institution responsible for implementation. The copy of the DDMP for Tinsukia was reviewed by the Committee, and was observed that the Plan did not identify Oil and Gas production related risks in hazards, and ecosystems, such as MMW and Dibru Saikhowa as elements of risk reduction. Therefore, the DDMP is silent about the damages to ecosystems, and therefore does not have a SOP to act upon when faced with a disaster relating ecosystems. This needs to be urgently rectified, with a detailed Hazard-Capacity-Vulnerability-Capacity Assessment being the basis, and healthy ecosystems considered as an integral part of the disaster resilience building interventions.
35. OIL has no protocol in place to address oil spills in wetlands and ecologically sensitive areas such as DSNP. This is a critical lapse given the high intensity of oil and gas operations around the MMW and the DSNP. The SOPs examined by the Committee were grossly inadequate and of generic nature, highly insufficient to address the impacts on sensitive ecosystems, in events such as the Baghjan accident.

36. The Committee examined the Terms of Reference of the studies / assessments commissioned by OIL India for redressing the environmental damages. Unfortunately, the studies are not strategically designed, and would not align with the pressing needs of ecological restoration and ensuring that the health of ecosystems is maintained in the long run, and the institutional and governance arrangements required for this purpose and put in place. The Committee is also of the opinion that merely creating species checklists would not be adequate, unless these are backed by thorough understanding of the ecosystem components and processes which are required to sustain the species richness, the risks to such conditions and the risk reduction pathways.

Restoration framework

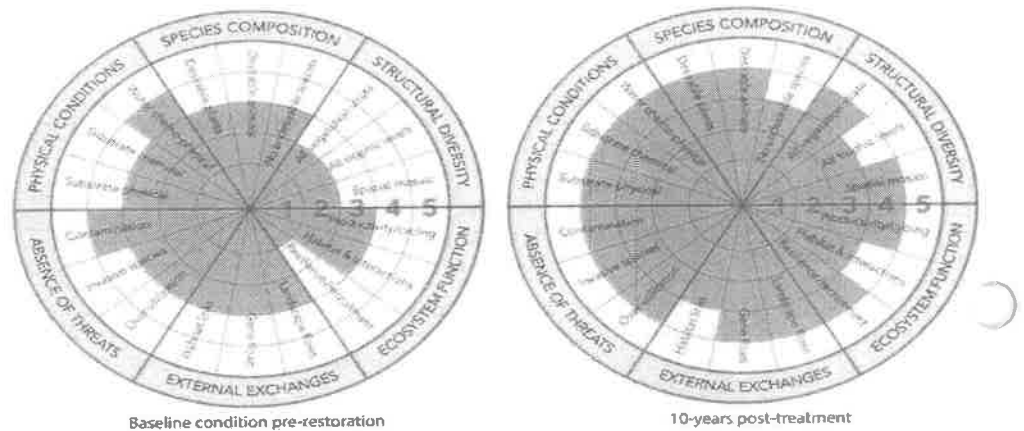
37. Wetlands such as MMW evolve and function in templates set by hydrological regimes, sediment and nutrients. As water moves through the MMW, the temporal spreading of flows lead of moderation of discharge and velocity; spatial spreading of flows leads to spreading of sediments and nutrients; exchange between surface and groundwater; and detention of water creates conditions for physical and biological processes which modify water quality and provide habitat for numerous life forms. Wetlands conservation thus espouses to achieve 'wise use' which is defined in the text of Ramsar Convention as the 'maintenance of its ecological character, achieved through the implementation of ecosystem approaches, within the context of sustainable development' (www.ramsar.org). Wise use is about maintaining wetland values and functions in order to maintain their intrinsic values as well as benefits provided to the society, from an inter-generational point of view. The Baghjan fire incident poses two central challenges for MMW: a) addressing the damage and degradation of the ecosystem through ecological restoration; and b) putting in place effective management arrangements that can ensure that the wetland ecosystem continues to be a 'healthy condition' to be able to sustain biodiversity and ecosystem services values.
38. Ecological restoration of DSBR (including DSNP and MMW) should be targeted at assisting the recovery of the ecosystem that has been degraded and damaged by the Baghjan accident (while injury has been established, extent and pathways need to be further investigated through systematic studies). The effort may be directed at enabling the degraded and damaged ecosystem to a trajectory of recovery that allows adaptation to local and global changes, as well as persistence and evolution of its component species.

The following eight internationally accepted principles for restoration are relevant here:

- Principle 1. Ecological Restoration Engages Stakeholders
- Principle 2. Ecological Restoration Draws on Many Types of Knowledge
- Principle 3. Ecological Restoration Practice Is Informed by Native Reference Ecosystems, while Considering Environmental Change
- Principle 4. Ecological Restoration Supports Ecosystem Recovery Processes
- Principle 5. Ecosystem Recovery Is Assessed against Clear Goals and Objectives, Using Measurable Indicators
- Principle 6. Ecological Restoration Seeks the Highest Level of Recovery Attainable
- Principle 7. Ecological Restoration Gains Cumulative Value when Applied at Large Scales
- Principle 8. Ecological Restoration Is Part of a Continuum of Restorative Activities

39. Ecological restoration has to be guided relative to an appropriate reference model, regardless of time required to achieve the recovery. The reference model, which has to be built from multiple sources of information should characterize the condition of the wetland had it not been degraded or damaged (say prior to the Baghjan accident), and also accommodate the known or predicted change in environmental conditions in and around the wetland (for example, the implication of intensification in tea cultivation in the buffer regions of the wetland). It is also stressed that reference condition are not mere replication of historical condition, but one in which the native species and communities are able to recover, and continue to reassemble, adapt and evolve (Fig. 11).
40. For the gains of restoration to persist over time, it is also essential to put in place effective management arrangements which can secure that the full range of biodiversity and ecosystem services of the MMW are delivered in perpetuity by limiting and managing impact of human-induced adverse change in the ecosystem. The management arrangements should also strive to ensure integration of MMW biodiversity and ecosystem services in sectoral plans, such as disaster management, rural development, fisheries, tourism and others.

Figure 11. The ecological recovery wheel for conveying progress of recovery of ecosystem attributes compared with those of reference model. The left model indicates the levels of ecosystem attribute at the baseline level (to be determined before restoration is initiated), and the right panel indicates the post restoration levels (for a hypothetical period of 10 years). (Source: Gann, G.D., McDonald, T., Walder, B., Aronson, J., Nelson, C.R., Jonson, J., Hallett, J.G., Eisenberg, C., Guariguata, M.R., Liu, J., Hua, F., Echeverria, C., Gonzales, E., Shaw, N., Decler, K. and Dixon, K.W. (2019). *International principles and standards for the practice of ecological restoration*. Second edition. *Restor Ecol*, 27: S1-S46. <https://doi.org/10.1111/rec.13035>)



41. In this interim report, the committee proposes the following immediate measures, to be taken up by the Forest Department (working with expert agencies) within the coming six months:
- Update the management action plan for DSBR taking into account the diversity of habitats, the interconnectivity of the park with river and wetland ecosystems, and the risks posed by developmental activities such as oil and gas production (including the damages inflicted by Baghjan accident).
 - Update the management action plan for MMW, in line with the diagnostic framework recommended by the MoEF&CC under the National Plan for Conservation of Aquatic Ecosystem. The management plan should inter-alea determine the current condition, specify desired condition and pathways for achieving the desired condition (including the damages inflicted by Baghjan accident).
 - Delineate the MMW wetland regime based on a combination of ecological indicators (inundation regime, presence of hydrophytic vegetation and hydrocarbon soils).
 - Delineate the zone of influence of MMW, taking into account the hydrological connectivity with the Brahmaputra River and DSNP

- e. Conduct systematic studies and monitoring to determine the level of contamination within various components of the wetland and terrestrial area (water, sediment, vegetation).
- f. Undertake studies and systematic monitoring to ascertain that in multiple use areas the wetlands products (from buffer zone) are safe for human consumption. In case the studies determine that any of the wetland products are unsafe for human consumption, its extraction from the wetland should be banned for a period as suggested by the study, and the dependent communities fully compensated for the loss.
- g. Constitute an 'ecological restoration steering committee' which would be tasked with:
 - a) Approving an ecological restoration plan
 - b) Monitoring and review of progress of implementation of restoration plan
- h. Commission an ecological restoration baseline assessment (by involving expert agencies and with full stakeholder engagement) which would be tasked with:
 - i) Systematically defining a 'reference ecosystem condition' which would serve as a guide for ecological restoration. The reference condition should be established for all major ecosystem attributes, using all knowledge systems (published science, indigenous and local knowledge, expert judgement), and take into views of all stakeholders
 - ii) Systematically defining ecological restoration indicators which would serve as a basis of assessing restoration effectiveness over long term
 - iii) Identifying restoration options – with specific focus on nature-based solutions which use native species
 - iv) Identify monitoring indicators for all major ecosystem attributes (physical condition, species composition, ecosystem function) as well as threats and external exchanges
 - v) Projecting resource requirement to implement restoration measures
 - vi) Suggesting an institutional arrangement to implement restoration measures
- i. Prepare draft notification of MMW as per the requirements of Wetlands (Conservation and Management) Rules, 2017 and place for approval of Assam State Wetlands Authority
- j. Conduct epidemiological studies within the communities living around the wetland, and using the wetland resources, to determine the level of exposure and health

- impacts. The studies should take a long-term view of the health impacts – such as health risks created by carcinogens released by the accident. Accordingly, a system of comprehensive health insurance of all persons living in the zone of impact (we may consider all communities residing around the MMW and DSNP, as well as those residing within 5 km radius of the BG-5) so that the health risks are covered
- k. Create SOPs to safeguard natural landscapes from the risks posed by oil and gas exploration, and adapt the same for site specific conditions
 - l. Update DDMP of Tinsukia and adjoining districts to incorporate hazards posed by oil and gas exploration, and the role of ecosystems in risk reduction. The District Administration should have appropriate mechanism to monitor and regulate oil and gas related risks and respond in the case of emergency
 - m. Identify research topic to be funded by DSBR committee for scientific management of biodiversity and drivers impacting it

Other Surviving Issues

42. The Committee also had an interactive session with the District Civil Administration, Tinsukia, during which the Deputy Commissioner was also present. During such session, the Deputy Commissioner has in writing, identified the following issues (Copy of letter attached):



GOVERNMENT OF ASSAM
OFFICE OF THE DEPUTY COMMISSIONER, TINSUKIA DISTRICT

No. TRF.2/2017/Pt-1/96

Dated Tinsukia the 11th October, 2021

Issues regarding Baghjan blowout incident

1) COMPENSATION: After the blowout incident and the subsequent fire at the Oil and Gas Rig (#BGN No. 5) at Baghjan, compensation has been paid to the victimized families of Baghjan, yet some affected villagers are dissatisfied with the compensation amount paid to them by Oil India Ltd., Duliajan and request a review of the compensation matter.

2) RESTORATION OF FLORA & FAUNA: Baghjan is located in an ecologically diverse area, a region that is extremely rich in bio-diversity both in terms of flora and fauna, planktons, molluscs, etc., and is in close proximity to the Dibru-Saikhowa Biosphere Reserve and Maguri-Motapung wetland which is an important International Bird Area (IBA). The oil spillage granted an adverse effect on biodiversity of the area. Abandoned nests were witnessed; bird density was comparatively lower than previous year, etc. Assessment needs to be made on the impact of this accident on migratory birds during migration period.

3) ECOTOURISM: Natun Rangagora is a major village under the Buffer Zone of Dibru-Saikhowa Biosphere Reserve and the village has been playing a major role in the conservation of Maguri-Motapung Beel through Eco-tourism. Oil Well BGN-5 blowout hampered tourist services operating in Maguri-Motapung Beel and Dibru-Saikhowa National Park.

4) LIVELIHOOD OF THE FISHERMEN: Baghjan oil well BGN 5 blowout has affected the fish population due to spillage of oil in the Beels, Wetlands and the fisheries. This has hindered the livelihood of the local fishermen who are engaged both in culture and capture fishery and the owners of the fisheries of the area.

5) EROSION: Baghjan and Dighal-tarang villages are still affected by the problem of frequent erosion of river Brahmaputra. Two nos. of erosion protection proposal have been taken up. One amounting to Rs. 4.12 Cr has been taken up with Water Resource Department, Assam and another proposal of Rs. 26,92,00,000.00 (Twenty Six crore ninety two lakhs) only has been taken up with National Disaster Management Authority.

Baghjan village has a necessity of water supply scheme, veterinary hospital and Model school for the welfare of the people. Proposals for the same have been taken up with Government.


Deputy Commissioner

Tinsukia

Interim Recommendations

43. This chapter presents the Committee's recommendations for addressing the causes and consequences of the injuries caused by the BGN#5 blowout and fire. Further, direction of payment of compensation to redress the damage inflicted by Baghjan accident is provided:
44. The recommendations are grouped in four distinct areas:
- a. Safeguarding the Environment
 - b. Strengthening Oil (condensate) Spill Response, Planning, and Capacity
 - c. Overcoming the Impacts of the BGN#5 Blowout, Spill and Restoring the impacted area
 - d. Promoting Stakeholder Engagement to Ensure Responsible On-shore Drilling

45. *Safeguarding the Environment*

The ecological assets at risk due to Baghjan accident - namely the DSNP and MMW are source of wide-ranging ecosystem services and habitats for several life forms. These services are critical for food, water and climate security not only for the communities living in and around this ecosystem, but for the wider landscape. Only a small fraction of these ecosystem services, mainly soil based and wetland products such as fish and plants enter formal economy and command a price. Ecosystem services such as flood buffering, pollution abatement, ground water recharge, carbon sequestration and sediment retention are irreplaceable, and do not render easily to economic estimates. Beyond these, there are strong cultural and relational linkages communities attach with these ecosystems. It is apparent that Baghjan accident has put a very costly ecological infrastructure at risk.

46. *Strengthening Oil (condensate) Spill Response, Planning, and Capacity*

- a. The zone of impact of Baghjan is highly likely to spread beyond where oil and gas condensate were spotted after the accident. The MMW and DSNP are open ecosystems, connected by flows of river Brahmaputra and its tributaries, and hence damages inflicted on one part of the ecosystem is likely to manifest into implications for other parts (such as through transport of pollutants and movement of affected species such as fish to river, national park and wetlands). The delay containment and recovery /removal of

contaminants/ pollutants from the MMW and several flood pulses since the accident have created distinct opportunities for the same. There is a clear need for capacity building of the joint public-private partners in the area for responding to similar incidents in future.

- b. Available datasets and information do not permit a clear assessment of full spectrum of damages to the ecosystem due to Baghjan accident. In several cases, the health impacts of pollutants emerge after a long time. Similarly, the impacts of pollutants on ecosystem processes and functions (such as biogeochemical cycles) are complex and are likely to result in altered physiological responses in species, ecological communities and habitats. Such risks can only be assessed through systematic studies which are done by establishing rigorous baselines and against suitable control sites. Thus, it is an imperative to err on the side of caution while making any conclusion on the likely impact of the accident.
- c. Contamination in Bhaghjan blowout has affected nearby water bodies and its waterways which has injured many species of fish and wildlife. The members are of the view that Government should immediately release consumption advisories for fishing in the area if test results shows any elevated levels of contaminants.

Interim determination of amount for facilitating remedial measures

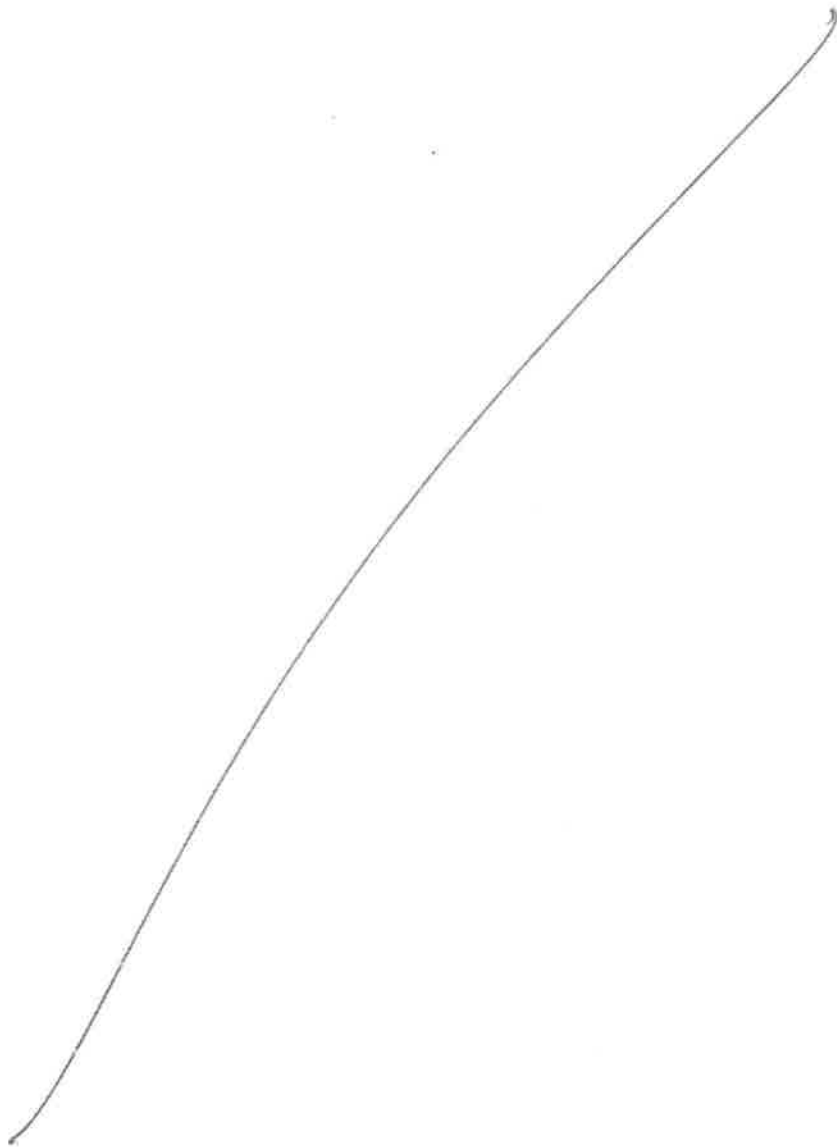
47. Sustaining the benefits of ecological restoration will require investment into effective ecosystem management arrangements - which are very rudimentary at present. It is pertinent that ecological restoration is accompanied by putting in place management arrangements for DSNP and MMW so that their ecosystem services and biodiversity value gains are sustained.
48. Some individuals and communities in the Tinsukia district have articulated perceptions of public health risks associated with the Baghjan blowout as well risk of cross-contamination due to some of the interim remedial measures taken by OIL. Effective risk communication is essential to manage the potential risks associated with such incident. Stakeholder engagement is essential to learn about risk perceptions, to learn about what information stakeholders want and need to make decisions effectively, and to

develop communication products to that end. OIL and adequately reviewed by concerned local administration will need to post reports documenting its progress on the various remediation and restoration works on a publicly available website, to increase transparency so that the public can better understand its performance.

49. The Committee therefore recommends that OIL deposits Rs. 2,500 crores (details/breakup to be given in the final report):

- Systematic studies for tracking pollutants in various attributes of the blowout site, MMW and DSNP (water, soil, sediments, vegetation, species and others)
- Implementing baseline assessments including site characterizations for ecological restoration of blowout sites, DSNP and MMW
- Implementing ecological restoration plan
- Covering the risk of prohibiting harvest of land based and wetland products, should these be found to be contaminated with pollutants
- Covering the cost of comprehensive health insurance of all people and livestock living in and around the drilling pad area, the DSNP and MMW.
- Upgrading management plans for DSNP and MMW, Site management plan of drilling areas and their implementation costs for three years

50. The Committee also clarifies that the aforementioned costs do not constitute the economic value of the damages, rather are tentative costs to undertake steps to redress the damages. The ecological asset at risk is rather 'priceless' - and it is the fundamental duty of the Government of Assam and Government of India to protect these assets for their citizens under the doctrine of public trust. The Committee also clarifies that the amount suggested is an interim one, and may stand to be increased if the final assessments so require.



b

Appendix B: Official Orders

1

ITEM NO.1 Court 4 (Video Conferencing) SECTION XVII

S U P R E M E C O U R T O F I N D I A
R E C O R D O F P R O C E E D I N G S

Civil Appeal No(s).2201/2021

BONANI KAIKAR

Appellant(s)

VERSUS

OIL INDIA LIMITED & ORS.

Respondent(s)

(WITH IA No. 92866/2021 - APPLICATION FOR PERMISSION, IA No. 67426/2021 - EXEMPTION FROM FILING AFFIDAVIT, IA No. 67425/2021 - EXEMPTION FROM FILING C/C OF THE IMPUGNED JUDGMENT, IA No. 72576/2021 - PERMISSION TO FILE ADDITIONAL DOCUMENTS/FACTS/ANNEXURES, IA No. 67424/2021 - STAY APPLICATION)

Date : 02-09-2021 This appeal was called on for hearing today.

CORAM :

HON'BLE DR. JUSTICE D.Y. CHANDRACHUD
HON'BLE MR. JUSTICE VIKRAM NATH
HON'BLE MS. JUSTICE NEMA KOHLI

For Appellant(s)

Mr. Siddharth Mitra, Sr. Adv.
Ms. Vasudha Zutshi, Adv.
Ms. Shruti Agarwal, AOR

For Respondent(s)

Mr. Aman Lekhi, ASG
Mr. Harsha Peechara, Adv.
Mr. Ashish Kumar Tiwari, AORMr. K.M. Nataraj, ASG
Mr. Gurmeet Singh Makker, AOR
Mr. Shailesh Madiyal, Adv.
Mr. Sharath Nambiar, Adv.
Vatsal Joshi, Adv.Ms. Aishwarya Bhati, ASG
Mr. Ravindra Lokhande, Adv.
Mr. Sandeep Mahapatra, Adv.
Mr. T. Gopal, Adv.
Dr. Abhishek Atrey, AOR
Ms. Ambika Atrey, Adv.

UPON hearing the counsel the Court made the following
O R D E R

- 1 This appeal arises from a decision of the National Green Tribunal¹ dated 19 February 2021.
- 2 An oil 'blow-out' took place from Baghjan 5 Oil well of the first respondent, Oil India Limited² on 27 May 2020. As a consequence of the accident, extensive damage and destruction was caused to the biodiversity of Dibru Saikhowa National Park and Biosphere Reserve.
- 3 The NGT constituted a Committee of Experts chaired by Justice B P Katakey by an order dated 24 June 2020 to enquire into all aspects of the incident. In its preliminary report dated 24 July 2020, the Committee, *inter alia*, noticed that extensive damage was caused to (i) publicly owned resources, including Maguri-Motapung Wetland, DSNP, the eco-sensitive zone, including water bodies, air and wildlife; and (ii) private property of survivors in the affected villages.
- 4 The Expert Committee found that (i) OIL did not possess mandatory consent to establish and operate under Sections 25 and 26 of the Water (Prevention and Control of Pollution) Act 1974, and Section 21 of the Air (Prevention and Control of Pollution) Act 1981 when it started operations in Baghjan 5 Oil well in 2006. (ii) OIL does not have the requisite consent under the law to carry out drilling and testing of hydrocarbons in the specified well except for the years 2008-09, 2012-13 and 2018-19; and (iii) OIL does not possess authorization under Rule 6 of the Hazardous Waste (Management, Handling and Transboundary Movement) Rules 2016, which constitutes a violation of the conditions stipulated in the Environmental Clearance dated 11 May 2020.

1 "NCT"
2 "OIL"

5 By a subsequent progress report dated 31 October 2020, the Committee detailed widespread damage to the flora and fauna of the region, including:

- (i) Thirty five varieties of fish species belonging to thirteen families, many of which had been completely wiped out; and
- (ii) A drastic decline in water oxygen content which has resulted in a high rate of destruction of marine life.

6 The report recommended a comprehensive impact assessment along with an integrated ecological restoration plan for bioremediation of hydrocarbons polluting the soil and the wetland.

7 When the matter was taken up by the NGT, it noted that about 9,000 persons who had been displaced were placed in camps at an outlay of Rs 11.20 crores. About 3,000 affected families were paid an amount of Rs 30,000 each, apart from Rs 12 lakhs which was paid to eleven families, whose houses were burnt. OIL had accepted its liability to pay Rs 68 crores as compensation under a tripartite agreement between OIL, the victims and the Deputy Commissioner in terms of letters dated 25 September 2020 and 2 December 2020. In this backdrop, the NGT did not proceed further on the issue of compensation. In view of the gravity of the accident, which resulted in a massive fire which continued for almost six months, the NGT constituted the following three Committees:

- (a) A six-member Committee headed by the Secretary, Ministry of Petroleum and Natural Gas to affix responsibility for the failures of those involved and present at the incident and to lay down a road map for ensuring compliance of safety protocols;

4

- (b) A seven-member Committee to enquire into non-compliance of statutory provisions, including the Water (Prevention and Control of Pollution) Act 1974, the Air (Prevention and Control of Pollution) Act 1981, the Hazardous Waste (Management, Handling and Transboundary Movement) Rules 2016 as well as the requirements of the Environmental Clearance in terms of the EIA notification dated 14 September 2006; and
- (c) A ten-member Committee headed by the Chief Secretary, Assam (with the Managing Director of OIL as one of its members) to assess the damage to and compensation for the restoration of Dibru Saikhowa National Park and Maguri-Motapung Wetland by taking over all surviving issues from the Committee chaired by Justice BP Katakay. The ten-member Committee was directed to submit its report within six months.
- 8 The dispute in the present appeal relates to the third of the above Committees which is chaired by the Chief Secretary, Assam.
- 9 During the course of the hearing, Mr Siddharth Mitra, Senior Counsel appearing on behalf of the appellant submitted that there is a genuine objection to the presence of the Managing Director of OIL as a member of the ten-member Committee. Moreover, it has been submitted that in laying down an extended time schedule of six months, the NGT lost sight of the urgency of the situation. Finally, it was also urged that the NGT has failed to direct any deposit towards the restoration of the environment in which event the work of restoration cannot commence in the immediate future.
- 10 This Court issued notice on 1 July 2021. On 23 August 2021, certain suggestions were placed before the Court on behalf of the appellant in regard to the re-

constitution of the Committee. Accordingly, the following order was passed:

- "1 The petitioner has placed suggestions before this Court in regard to expert members who should be associated with the work of assessing the damage and providing remedial compensation on account of the loss which has been caused to the environment, including the loss of biodiversity as a result of the blowout which took place at the oil field of OIL. A copy of the IA containing the suggestions shall be emailed to Mr K M Nataraj, Additional Solicitor General appearing on behalf of the Ministry of Environment, Forests and Climate Change for his response on the next date of listing.
 - 2 The Court has been apprised of the fact that four out of six experts who have been suggested by the petitioner are conversant with the subject matter, having been associated with the work of the Committee constituted by the National Green Tribunal, headed by Justice B P Katakay."
11. As the above order indicates, many of the experts, whose names have been suggested by the appellant, have been associated with the work which was assigned by the NGT by constituting an expert committee in the first place. We had requested Mr K M Nataraj, Additional Solicitor General to indicate after seeking instructions from the Ministry of Environment, Forests and Climate Change³ on whether and, if so, which of the names which have been proposed by the appellant would be acceptable to act as members of the Committee. In requesting Mr K M Nataraj to take these instructions, we must clarify that there is no doubt about the expertise of the members suggested by the appellant. The object, however, was to ensure that the work can progress with a sense of expedition so that the task of remediation can be taken up in the near future. MOEF&CC has responded in a fair and objective manner by accepting most of the suggestions.
- 3 "MOEF & CC"

- 12 After hearing Mr Siddharth Mitra, learned Senior Counsel appearing on behalf of the appellant, Mr K M Nataraj, Additional Solicitor General, who appears for MOEF&CC, Ms Aishwarya Bhati, Additional Solicitor General for the Ministry of Petroleum and Mr Aman Lekhi, Additional Solicitor General for OIL, we are of the considered view that the third Committee constituted by the NGT (as noticed earlier), needs to be reconstituted. The NGT has constituted a Committee consisting of ten members. Such a large Committee would find it difficult to convene meetings at relatively short intervals, which is necessary to ensure that the work of implementing remedial measures is taken up with expedition. The NGT has directed that the Chief Secretary of Assam should be the Chairperson of the ten-member Committee. Consistent with the responsibilities of office which are entrusted to the Chief Secretary, we are of the view that it would not be appropriate to assign the task to the Chief Secretary personally. The task before the Committee combines facets of an adjudicatory nature with expert domain knowledge on issues pertaining to environmental concern. The precautionary principle can be espoused by domain experts who have both knowledge and experience in ecological conservation. The work must be taken up with priority and every possible step has to be taken for restoration of the environment. OIL must bear the cost of restoration. The principle of strict liability has to govern. There can be no tomorrow until we preserve the environment here and now.
- 13 The NGT was in error in allowing the presence of the Managing Director of OIL as a member of the Committee. The terms of reference to the Committee include assessment of the damage to and restoration of Dibru Saikhowa National Park and Maguri-Motapung Wetland. Besides, the Committee is to take over all surviving issues from the earlier Committee. The presence of a representative of OIL as a Member of the Committee would lead to a conflict of interest and would not contribute to the fairness of the outcome. An entity against whom there are allegations of a dereliction obligations under the law cannot sit in judgment over

its own conduct. OIL can be heard by the Committee, but permit the presence of one of its senior officers would make it a judge in its own cause. OIL should not be a member of the Committee.

14 Consequently having heard counsel, we direct that the ten-member Committee constituted by the NGT shall be substituted by a Committee to be chaired by Justice B P Katakey, former Judge of the Gauhati High Court. Since Justice B P Katakey has already conducted a substantial amount of work in assessing the damage due to the accident, pursuant to the entrustment of the task by the NGT, there is no reason why the Committee should not have the benefit of the work which has already been done and the experience of its Chairperson. We accordingly direct that the Committee shall consist of the following members:

- (i) Justice B P Katakey, former Judge of the Gauhati High Court ...Chairperson
- (ii) Dr Ritesh Kumar, Director, Wetlands International South Asia
- (iii) Mr G S Dang, ex-Deputy Director, Indian Institute of Petroleum, Dehradun
- (iv) Mr Qamar Qureshi, Professor, Wildlife Institute of India
- (v) Mr Bedanga Bordoloi

15 The Committee is requested to take up the work at its early convenience and to submit its final report within three months. The Committee would be at liberty to co-opt or hear any other expert as is necessary for facilitating its task. The MOEF&CC shall depute a nodal officer to facilitate all logistical arrangements for the Committee. The Committee shall make an interim determination of the damages within a period of one month so that a suitable direction can be issued to OIL to deposit the amount for facilitating remedial measures. The Committee shall also be at liberty to recommend other interim remedial measures and

suggest final remedial measures in the course of its eventual report. To facilitate the work of the Committee, we direct OIL to deposit an amount of Rs 50 lakhs with the MOEF&CC within a period of one week from today so that necessary steps can be taken to facilitate the meetings and work of the above Committee. All concerned, including the Chief Secretary of the Government of Assam, the Central and State Pollution Control Boards and OIL are directed to cooperate with the Committee and to provide all logistical assistance to the Committee and its members to facilitate work. The officials of the Government of Assam shall also render all necessary assistance when called upon to do so.

- 16 The interim report shall be submitted in a sealed cover to the Registrar (Judicial) of this Court, upon which the present appeal shall be listed before this Court within two weeks of the receipt of the report for further directions.
- 17 List the appeal on 21 October 2021.

(SANJAY KUMAR-I)
AR-CUM-PS

(SAROJ KUMARI GAUR)
COURT MASTER

HSM-11-17-2021-HSM
 Government of India
 Ministry of Environment, Forest and Climate Change
 (HSM Division)

Indira Paryavaran Bhawan
 Jor bagh Road, Aliganj
 New Delhi-110003

Date: 14th September, 2021

Office Order

Sub: Hon'ble Supreme Court Civil Appeal No(s). 2201/2021 related to chemical accident (fire) at Baghjan Oil Field, District - Tinsukia, Assam - Constitution of Committee in compliance with order dated 02.09.2021 - reg.

This refers to the chemical accident (fire) at exploration oil-well of M/s Oil India Limited at Baghjan Oil Field, District - Tinsukia, Assam on May 27, 2020. Hon'ble National Green Tribunal (NGT) (Eastern Zone Bench) heard the matter in O.A. No.43 / 2020 (EZ) (Bonani Kakkar Vs Oil India Limited & Others). An Expert Committee was also constituted vide Hon'ble NGT's order dated 24.06.2020 which submitted its report on 01.09.2020, 31.10.2020 and 10.12.2020. The Expert Committee concluded that the incident has caused severe damage to the surrounding habitations/ natural features like National Parks/ Water bodies/ wetlands etc.

2. The Hon'ble NGT vide order dated 19.02.2021 has disposed of the matter and constituted three (3) Committees to look into the aspects related to (i) fixing accountability of individuals (by MoPNG), (ii) non-compliance Water Act, 1974/ Air Act, 1981/ Environment (Protection) Act, 1986 (by MoEFCC), and (iii) damage assessment and restoration plan (by Chief Secretary, State Government). A copy of the Hon'ble NGT order is enclosed for reference. The final order of the Hon'ble NGT was challenged by the appellant in Hon'ble Supreme Court and accordingly, the Hon'ble SC had stayed the operation of the impugned judgment and order of the Hon'ble NGT dated 19 February 2021 vide its order dated 01.07.2021. The Hon'ble Supreme Court, vide order dated 02.09.2021, re-constituted the third committee mandated to undertake damage assessment and restoration plan related task (order enclosed for reference).

3. In pursuance of the Hon'ble SC order dated 02.09.2021 in civil appeal no. 2201/2021, the Government of India, Ministry of Environment, Forest and Climate Change hereby constitutes the following Committee for 'Assessment of the damage and restoration of Dibru Saikhowa National Park and Maguri-Motapung Wetland' as below:

Purpose	Committee
Assessment of the damage and preparation of restoration plan of Dibru Saikhowa National Park and Maguri-Motapung Wetland	1. Justice B P Katakey, former Judge of the Guwahati High Court - Chairperson
	2. Dr Ritesh Kumar, Director, Wetlands International South Asia

Purpose	Committee
	3. Mr G S Dang, ex-Deputy Director, Indian Institute of Petroleum, Dehradun
	4. Mr Qamar Qureshi, Professor, Wildlife Institute of India
	5. Mr Bedanga Bordoloi, Soil Expert

5a. The "Terms of Reference" for the above-mentioned Committees are governed in line with the order of the Hon'ble SC, as under:

- i. The Committee shall assess the damage and prepare the restoration plan of Dibru Saikhowa National Park and Maguri-Motapung Wetland.
- ii. The Committee shall make an interim determination of the damages within a period of one month so that a suitable direction can be issued to M/s OIL to deposit the amount for facilitating remedial measures.
- iii. The Committee shall also recommend other interim remedial measures and suggest final remedial measures in the course of its eventual report.
- iv. The Committee shall submit final report within three months of the issue of this order.
- v. The Committee can co-opt or hear any other expert as is necessary for facilitating its task.
- vi. The Committee shall be free to undertake site visits, if need be.

4. The Chief Secretary of the Government of Assam, the Central Pollution Control Board, the Pollution Control Board of Assam and M/s OIL are requested to extend all requisite cooperation to the Committee, in line with Hon'ble SC directions, and also provide required logistical assistance to the Committee and its members to facilitate work, whenever requested.

5. Wildlife Institute of India (WII) (under administrative control of MoEFCC) shall be the nodal agency for coordination. The Dy. Registrar (Administration), Sh P.K. Aggarwal, WII shall be the nodal officer on behalf of MoEFCC for coordination. WII shall extend required logistical and secretarial support to the Committee. The contact details of nodal officer are as below:

Sh. P.K. Aggarwal, Deputy Registrar
Wildlife Institute of India,
Post Box # 18, Chandrabani
Dehradun 248001 Uttarakhand
Email: pka@wii.gov.in
Tel: +91-135-2640114 to 15 Ext (110) / +91-135-2646110(D)
Fax: +91-135-2640117

6. The expenditure incurred towards the work undertaken by the Committee shall be met by the amount deposited by M/s OIL. In the interim, M/s OIL shall deposit a sum of ₹50 lakhs so that necessary steps can be initiated/ taken to facilitate the meetings and work of the above Committee. Hence, representatives of M/s OIL are also requested to coordinate with the Nodal officer to chalk out the modalities for deposit of ₹50 Lakhs.

7. The expenses towards TA/ DA, Sitting Fee etc. in respect of Committee members, shall be as per the Hon'ble Supreme Court orders/ guidelines/ rules in similar matters, if any, else

the same shall be governed by the Central Government norms. The official members may claim TA/ DA, if applicable, from their respective organizations.

8. This issues with the approval of Secretary (EF&CC).


(Ved Prakash Mishra)
Director

To:

(As per the list enclosed)

Copy for information to:

PS to MEFCC/ PPS to Secretary (EF&CC)/ PS to JS (HSMD)/ IFD/ GC/ Budget Division/SO (HSMD)/ Guard file

Mailing List

Hon'ble SC Committee Members

1. Justice B P Katakey (Chairman), Former Judge of the Gauhati High Court (*aspolacct@gmail.com*)
2. Dr Ritesh Kumar Director, Wetlands International: South Asia (*ritesh.kumar@wi-sa.org*)
3. Mr G S Dang, ex-Deputy Director, Indian Institute of Petroleum, Dehradun
4. Mr Qamar Qureshi, Professor, Wildlife Institute of India (*qna@wii.gov.in / qureshi1510@gmail.com*)
5. Mr Bedanga Bordoloi Soil Expert (*bedangamanage07@gmail.com*)

Central/ State Government Officials

6. The Chief Secretary, Govt. of Assam
7. The Chairman, Central Pollution Control Board
8. The Joint Secretary, HSM Division, MoEFCC
9. The Joint Secretary, IA Division, MoEFCC
10. The Inspector General (Wildlife), IPB, MoEFCC
11. The Inspector General of Forests (C), MoEFCC, IRO, Guwahati
12. The Chairman, Pollution Control Board, Assam
13. The Chairman- Managing Director, Oil India Limited
14. The Director, Wildlife Institute of India
15. Sh. P.K. Aggarwal, Deputy Registrar, Wildlife Institute of India - Nodal Officer


(Ved Prakash Mishra)
Director

Appendix C: List of Committee members meetings

Date	Place
7 th September, 2021	Guwahati (At the office of Assam Police Accountability Commission)
8 th September, 2021	Virtual (via Zoom Platform)
8 th September, 2021	Whatsapp Group for 5 members initiated
22 nd September, 2021	Virtual (via Zoom Platform)
4 th October, 2021	Virtual (via MS Teams Platform)
7 th October, 2021	In-person meeting, Dibrugarh
8 th October, 2021	In-person meeting, Dibrugarh
9 th October, 2021	In-person meeting, Dibrugarh
10 th October, 2021	In-person meeting, Dibrugarh
15 th October, 2021	Virtual (via Zoom)
18 th – 19 th October, 2021	In-Person meeting, New Delhi

