

Long Essay

ECOLOGICAL DISASTER IN INDIA'S
NORTHEAST RESOURCE FRONTIER:
BAGHJAN NATURAL GAS WELL EXPLOSION,
ENVIRONMENTAL TRAGEDY AND PEOPLE'S
PROTEST IN EASTERN ASSAM

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Introduction

Frontiers represent the discovery or invention of new resources. Resource frontiers fundamentally control and challenge existing institutional arrangements in a non-linear fashion. As new types of resource commodification emerge, institutional orders are sometimes undermined or erased outright, and sometimes taken apart and then reinterpreted, reinvented, and recycled. Frontier spaces are intimately connected to commodification through processes of dispossession involving enclosures, land grabbing, and other forms of primitive accumulation. Extractive industries have an inherent drive toward continuous expansion. M. B. Rasmussen and C. Lund mention that, “new resource frontiers emerge in different places around the globe. They do not exist as a function of geography per se, but are brought about because of new possibilities of resource extraction and use; and prompt new and competing claims to authority, legitimacy, and access. Frontiers are sites where authorities, sovereignties, and hegemonies of the recent past have been or are currently being challenged by new enclosures, territorializations, and property regimes. Frontiers are linked to processes of land control and are actively created through social and political struggles”.¹

India's North East as a resource frontier has been undergoing similar form of experiences of resource exploitation since the days of

colonial intervention. Here the article tries to explore the contested dynamics of resource exploitation in India's Northeast frontier and examine the ecological disaster due to Baghjan Oil Well explosion in Tinsukia district of eastern Assam. It attempts to comprehend the reasons for such disasters of resource exploitation and subsequent consequences to human habitat and local environmental sustainability. Further, the article tries to analyse the responses to such ecological disasters from stakeholders and Government agencies in the wake of people's protests and rising voices from environmental groups.

Northeast India as Resource Frontier

'Northeast India' is a postcolonial coinage that was forged in the 1970s. Sanjib Baruah points out that "Northeast India has been a frontier in more than one sense".² In addition to its history as a settlement frontier and the resultant group conflicts, the region has long been a resource frontier. The two words frontier and border share some common ground, but they are not alike. Settlement frontiers are sometimes distinguished from extractive or resource frontiers, places where mineral extraction, timber harvesting, establishing plantation crops, or the generation of hydropower motivate incursions. If migration into new lands is what makes a settlement frontier, land is the ultimate natural resource. Baruah mentions that "Northeast India is a perfect example of how a region can be both a settlement and a resource frontier. This duality is the key to why the idea of rightful share, i.e., allocations properly due to rightful owners to those who consider themselves to be native to a territory has become the favoured mode of political claims making in this region". Resource frontiers are natural. Before natural resources can be turned into corporate raw materials, nature has to be disengaged from local ecologies and livelihoods. There are always particular contingent historical circumstances under which nature gets turned into a commodity. In standard literature, the rise of capitalist resource frontiers is usually associated with threat to indigenous people's livelihoods. This is because resource frontiers make claims on the resources of the latter's subsistence commons and these claims eventually unmoors them from the commons.³

Environmental historian Ramchandra Guha once described Northeast India as one of metropolitan India's last remaining resource frontiers. He calls India "an ecological disaster zone marked by high rates of deforestation, species loss, land degradation, and air and

water pollution". In certain parts of Northeast India, this is evident even to the naked eye. In the state of Meghalaya, environmental anthropologist B. G. Karlsson found that "though there are places of great natural beauty, the general situation is rather dismal, largely at odds with the official rhetoric of the state's spectacular greenness".⁴

Arupjyoti Saikia points out that, "the mineral resources of the region did not go unnoticed before the British imperial push". Minerals like gold were key elements in political negotiations in the Ahom-Mughal conflict. The Ahom rulers too negotiated with the Naga tribes for getting access to salt brine. Much later in the 1750s, the French traveller Jean Baptise Chevalier found both the working of gold sands in riverbeds and commanding display of gold in the royal palaces, despite the poverty of the people. But this early enthusiasm never converted to real prospects for the Europeans. The discovery of tea and the realisation of this plant's ability to create wealth for the British Empire were accompanied by a parallel investigation of coal and other mineral resources. Coal was already an important resource through which imperial Britain had expressed its technological superiority.⁵

Viceroy George Nathaniel Curzon described the British Empire's frontier as threefold: "there was an administrative border, a frontier of active protection, and an outer or advanced strategic frontier". The colonial effort to establish direct rule, that is modern property rights and a modern legal and administrative system, was limited to the territories located within the administrative border. These were the settled districts of the frontier province, most of present-day Assam, and Sylhet, now in Bangladesh. With the production of tea, oil and coal, this area had become an enclave of global capitalism by the closing decades of the nineteenth century. The handover of large tracts of wastelands to European tea planters subverted old economic and social networks and property regimes in the region. There were frequent attacks on the plantations by tribesmen protesting their dispossession during the early years of tea in Assam. Colonial writings portrayed them as marauding barbarians. The Inner Line first introduced in 1873 was an attempt to fence off the plantations and cordon off areas of clear cemented colonial rule. But the Inner Line was redrawn repeatedly to accommodate the expansive compulsions of plantation capital, the recognition of imperfection in survey maps, the security anxiety of the state and the adaptive practices of internally differentiated local communities. In effect, land was repeatedly transferred between administration and un-administration. The protocols of governance in these areas

differed fundamentally from that of direct rule, under which the settled districts of Assam, which formed part of the more closely controlled parts of the empire, were governed.⁶

The history of the Northeast is bound up with colonial resource extraction and militarization. Extractive economic regimes like tea and oil set up by the British administration transformed the landscape of this frontier region from the mid-19th century onward through the clearing of forests, the importing of labour, and the partitioning of land into various categories of use and habitation. Oil was discovered in upper Assam near Moran, Digboi, and Makum and the British Burmah Oil Company (BOC) was given a ninety-nine years' lease on the oil fields from 1889. Colonial officials were optimistic about the coal potential in erstwhile Assam by mid-19th century, particularly as an alternative to the supply from Bengal. Coal was discovered in upper Assam at Makum in 1865 and at Ledo in 1882, which accelerated the development of the tea industry, as coal was used to fuel the tea processing factories. A railway line was built between the oilfields, coalmines, and tea plantations in Upper Assam and the Brahmaputra River in 1885. During the same period, the colonial authorities sought to control the opium crops in Assam by expanding the cultivation of the crop and introducing manufactured opium into the markets.⁷

Independent India's Northeast policy has evolved via a process of muddling through, as Northeast India emerged as an official region of eight states. The colonial-era protocols of protection and exclusion acquired a new lease of life as peace and order became the top priorities of national security. The excluded area protocols were now packaged as policies of positive discrimination or affirmative action and most of the excluded areas are now states of the Indian Union. But they are states with a crucial difference: the elected state governments consist almost entirely of politicians belonging to the core ethnic groups, the Scheduled Tribes that the post-colonial state and its institutions sanctify and legitimize as indigenous to that state in accordance with the colonial ethno-territorial frame. These core ethnic groups have near-exclusive access to public employment, business and trade licenses, rights to land ownership and exchange, and the right to seek elected office. They are, in other words, *de facto* ethnic homelands.⁸

Since 1947, the North East frontier has witnessed a series of low intensity armed conflicts between the Indian Government and armed groups demanding homelands of varying levels of autonomy. The desire for control over land, resources, and settlement in

tribal majority areas is at the forefront of these struggles, reflecting histories of violence, extraction, and state-making in forests, frontiers and coastlines throughout Asia. In the light of this history, issues of governance and regulations of land and people particularly in terms of extractive economic regimes are an integral factor in the region's politics, economy and social stability.⁹ With the rise of resource frontiers, people's relations to land in Northeast India changed dramatically. This is primarily because of the value that land has acquired in the context of the mobilization of those landscapes into resource frontiers. The most highly valued land is in urban areas because it "attracts high sales values as well as high rent, when sold or rented out for non-agricultural and residential use". But newly enclosed lands are also turned into commercial agricultural estates producing tea, horticultural crops, or vegetables. Commercial agriculture, however, is only a tiny part of the state's economy. Most de facto landowners of the core ethnic groups that have managed to acquire substantial chunks of land lease it out to migrant tenants that have no legal residential or property rights in these states because of the Inner Line Permit regime in place.¹⁰

However, the plains of Assam are an exception to this because resource extraction in these areas is carried out in a large, corporatized and formalised manner often regulated by the laws and regulations made by the Central and State legislatures. This arrangement has been a contentious issue in the resource frontier because it has resulted in debates at two levels: the relationship between central and sub-national authorities in the context of the resource sharing narrative on the one hand, and the conflict between the 'national interest' priority of the State and the rights of the indigenous communities over these resources on the other hand. These debates have resurfaced in the resource frontier of North-East India time and again.

Levels of Problems at the Resource Frontier

Over Exploitation of Resources Versus Conservation of Frontier Ecosystem

British colonial rule has been described as a "crucial watershed" in the ecological history of India.¹¹ Sanjib Baruah points out that, "colonial rule enabled the global expansion of the resource base of industrial societies as land and natural resources which were earlier controlled by gatherer and peasant societies came under the

control of new rules of property that created the legal foundation for the industrial mode of resource use. The effect of the colonial land settlement policy was to incorporate Assam into this new global resource use regime".¹² In this context, one of the far-reaching aspects of the British colonial rule in Assam was with regard to the changes in the ecology and the environmental relations brought about by the introduction of the plantation economy.¹³ The major effect of the colonial land settlement project was to eliminate the access to these lands of the shifting cultivators and hunter-gatherers of the Brahmaputra Valley and the surrounding hills. The new rules of property provided the legal foundation for new projects, those that the early colonials thought would bring 'civilization' to Assam and in post-colonial times came to be seen as projects that would bring about development, modernization and progress.¹⁴

Resource extraction in several parts of the region has led to significant irreparable ecological damage to sensitive biodiversity zones. Growing economic opportunities for extractive industries dependent on natural resources have compounded threats to the region's forests, especially in areas that continue to remain relatively pristine.¹⁵ Dolly Kikon points out how hydrocarbon operations in the middle of agricultural lands, oil spills destroying biodiversity of national parks, and pollution ruining vegetable patches, show that the extractive regimes in Assam have influenced social relations and politics on the ground. Ecological destruction and loss of livelihood are part of the story of Assam's development and progress.¹⁶ The resources in the 'frontiers spaces' of India are regulated both in the name of 'national interest' as well as 'national security', often collapsed into one.¹⁷ Since these resources were either under the jurisdiction of royalty or exclusive property of the colonial rulers, and under the control of the state, following Independence, such an all-pervasive exclusionist policy, unchanging over time, has resulted in accentuated conflicts. These have led to severe ecological consequences because when communities are not involved actively in managing their resources, they use them destructively.¹⁸

Resource Sharing: Centre Versus Indigenous Rights

In most post-colonial nations, management of natural resources by the state is an integral part of its wider developmental policy. As pointed out by Ditee Moni Baruah, "the concept of development in the decolonised third world countries after Second World War meant the process of capital accumulation through industrialisation

accompanied by disintegration of pre-modern economic organisation and social institutions. The question of development in Assam was also no different from this post-war discourse on development. The feeling that Assam remained one of the most backward provinces in India was so strong that the Assamese leadership continued to show concern for the economic development of Assam. The question of regional identity in post-independence India took in both the issues of cultural autonomy and economic development".¹⁹

In most of the writings and public speeches of the Assamese intelligentsia involved in the Assam Movement, it remains explicitly mentioned that Assam is a colonial hinterland for the industrial centres of India. This growing consciousness among the Assamese middle class was further heightened by the provocative and insensitive statements made by the Central leaders and a section of the national press regarding the Assam Movement. There had been an unusually sharp and prompt reaction to what could be described as a 'hostile and colonial' attitude of the Indian ruling class towards the North Eastern Region. The demands for autonomy and independence are generally characterised by strong reactions against 'outsiders', because for the common people of these exploited regions, the 'outsider' very often appears as the most tangible symbol of colonial rule.²⁰ Sanjib Baruah argues that sub-nationalism in India originated with and was sustained by civil societies with organisational capacities. For example, in case of Assam, the Assam Sahitya Sabha and the All-Assam Students' Union (AASU) played a significant role in sustaining Assamese sub-nationalism. The sub-nationalist mobilisations in Assam rallied around cultural demands like the use of Assamese language as the state language and medium of instruction and the economic demands for large-scale projects which would lead the province towards progress. It is these collective memories and aspirations that have produced sub-national 'imagined communities' within a pan-Indian 'imagined community'. Besides, the expression of regional pride and cultural affiliations in the sub-national politics and the question of rights over natural resources, have been a recurrent theme. The Assamese nationalist leaders argued that Assam is not poor in resources, but remained poor as her financial returns were low and because of the "inequity of the Central government".²¹

Several insurgent groups like the United Liberation Front of Asom (ULFA) speak the same language to justify their revolt. The ULFA argues that India has been engaged in large-scale exploitation of Assam's rich resources thereby reducing it to one of the most backward states. However, the ULFA added a new dimension to the

discourse on development by arguing that the relationship between the state and the centre was colonial in nature. Oil, as one of the important mineral resources of Assam, has played an important role in its politics and has been a determining factor in the relations between the centre and the state. The right over natural resources of Assam has been an issue of contention between the central government and Assam in post-independence India. Though the conflict between the State Government and Central Government started over the location of the refinery, the debates in the public sphere and in the Assam Legislative Assembly raised larger issues like the rights over natural resources, the question of Assam's development and Centre's role in it, and the relation between Centre and State.²²

The exploration of hydrocarbons in the North-Eastern resource frontier of India has often brought to light the debate regarding control over resources. The debate basically centres on the fact that commodification of natural resources at the hands of corporate bodies leads to a conflict between the developmental priorities of the state and the rights of the indigenous or the local communities over these resources. Kikon has observed that "modern Assam has had a deep and complicated relationship with hydrocarbon operations. What connects the hydrocarbon world and Assam is the structures of power, violence, and a culture of management, that feigns ignorance about the causes of local resentment. Extractive regimes in Assam are a 'technical matter', and the angst of communities a 'local issue'. This understanding has divided the extractive world from the community world. It is also an awkward relationship where companies emulate discriminatory management techniques, speaking only to 'leaders' and pushing away local communities. What is to be extracted (resources and powerful relations) and who are to be avoided (local communities and histories) are neatly demarcated. This is the logic of the extractive industry. Resource extraction has played an important role in defining the foundational logic of politics in the Brahmaputra valley and these are the grounds upon which the politics of sovereignty and the right to self-determination came up".²³

The oil well explosion in Baghjan brought to fore the debate regarding control over resources. Hydrocarbon extraction is carried out under the neo-liberal developmental model where corporate bodies are the decision makers and the ownership rights of the local communities over natural resources is not formally recognised. As a result, in the event of a disaster, the debate, at two levels – the

relationship between the central and sub-national authorities in the context of the resource sharing narrative on the one hand and the conflict between the 'national interest' priority of the state and the rights of the indigenous communities over these resources on the other hand – resurfaces time and again.

Baghjan Oil Well Explosion: What Went Wrong?

Baghjan is located in the Doomdooma Revenue Circle in the district of Tinsukia of Assam, India. Baghjan and its neighbouring areas are surrounded by the Dibru-Saikhowa National Park (DSNP) and Biosphere Reserve in the north and north-west and Maguri-Motapung wetland complex in the south. Oil India Limited (OIL), an oil giant and a Navaratna company, was involved in the drilling of Oil Well Number 5 at Baghjan when it witnessed a massive blowout on the 27th of May, 2020. Following this blowout, a big fire erupted at the damaged Baghjan Oil Well on the 9th of June, 2020. OIL has around twenty-three such drills across Baghjan, or what is known as the Baghjan Gas Field. This area came into existence in 2003 when the first exploratory drills came up. OIL had identified this area back in 1991. By 2005, Baghjan was converted into a Petroleum Mining Lease. The blowout, explosion and fire lasted for more than five months, from May 27th to November 15th, 2020, and resulted in the loss of an estimated 55 per cent of the biodiversity in the affected Dibru-Saikhowa landscape. As many as 1,632 hectares of wetland, 523 hectares of grassland, 172 hectares of area covering rivers and streams, and 213 hectares of forest, were damaged to varying degrees.²⁴

Fault Line

The blowout of Oil Well Number 5 at Baghjan happened while work over operations was going on to produce gas from a new sand (oil and gas bearing reservoir). In a statement, OIL mentioned that, “the well was taken for workover operation to plug the existing producing sand. While working on the well-head as per programme, suddenly the well became active and started displacing profusely. There was uncontrolled flow of natural gas with little amount of condensate leading to blowout” (Statement released by Oil India Limited on 27th of May, 2020). However, several scientists and geologists have pointed out that the Baghjan incident was a scientific failure and not technical. They have alleged that the Baghjan Oil Well, where

the present blowout happened, was never a gas well, rather it was a condensate well. Condensate wells are highly inflammable and often lead to explosion and fire. Since this is a condensate well and not a gas well, therefore the way drilling was carried out needed to be altered as condensate is far more volatile.²⁵ In this context, it is worth asking how different categories get created, recreated and dismantled in order to ease the process of resource extraction in the frontier regions. Removal of the Blowout Preventor (BOP) has been identified as the primary cause of the blowout in Baghjan and there are several scenarios possible under which the BOP fails.

Faulty Execution Plan

Several industry insiders pointed out that the Baghjan incident was a result of human negligence. Sources aware of the developments that preceded the blowout observed that the well was not fully secured before an attempt was made to move the workover rigs. This could be primarily attributed to negligence by Oil India and contractor company officials present at the site, as this was a high-pressure, high-temperature (HT-HP) well and needed more diligence than was being adopted during workover operations.²⁶

In the report submitted to the National Green Tribunal, it was revealed that OIL had started activities in Well Baghjan-5 five years prior to grant of the mandatory Environmental Clearance (EC) by the Ministry of Environment, Forest and Climate Change, Government of India. In this way OIL had contravened 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. In addition to this, it was found that the ambient noise levels in the region adjacent to the well after the blowout were above the permissible limit.²⁷

In the environment clearance issued by the Ministry of Environment, Forest and Climate Change (MoEFCC), OIL was required to follow provisions under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Hazardous Waste Management Rules, 2016, the Public Liability Insurance Act, 1991 and any orders passed by Hon'ble Supreme Court, High Court of Gauhati and any other Court of Law related to subject matter. However, it was observed in the report submitted to the National Green Tribunal (NGT) that at the Baghjan Oil

Well, the company did not follow the conditions for environment clearance. Paragraph XVIII of the Environment Clearance Report strongly directs the company to install a blowout prevention system to avoid accidents during drilling operations. The company released a press statement in the aftermath of the oil spill at Baghjan where it claimed that all arrangements, including adequate water spraying and installation of BOP (Blow Out Prevention), had been made to bring the oil spill under control. However, there is no way to confirm that BOP was pre-installed at the drilling site. In the aftermath of the incident, it was found that OIL did not take adequate measures to prevent spillage of hazardous wastes into the water bodies through designated drains and treatment facilities, because of which the water bodies in the area became contaminated. The company was also required to adopt proven measures to mitigate chances of oil spilling and fire hazards which failed in the case of Baghjan.²⁸ OIL finally managed to douse the fire and bring the well blowout under control in the month of November 2020.

Critical Environmental Consequences

Loss of Critical Ecology and Impact on Biodiversity

The Baghjan-5 oilfield is located near an area that is rich in biodiversity, having several protected areas and important biodiversity hotspots in its surrounding, like Dibru-Saikhowa National Park, Bherjan Wildlife Sanctuary, Padumani Wildlife Sanctuary and Borajan Wildlife Sanctuary. Several reports prepared by government agencies and independent experts have documented the detrimental impact of condensate on environment, particularly on the marine and aquatic ecosystem of the area. The general characteristic of condensate is light, volatile and acutely toxic. In the preliminary report brought out by the Wildlife Institute of India (WII), Dehradun, titled, “*Impact of oil well blow out at Baghjan oil field, Assam and resulting oil spill, on aquatic flora and fauna of surrounding landscape*”, the research team pointed out that the oil spill had occurred in an area that is bordered by protected areas, rivers and important wetlands and Important Bird Area, which are the lifelines of not only biodiversity but also the livelihood of local communities. Having occurred in the monsoon season, the extent of impact due to the spread of toxic, hazardous gases and chemicals through air and water was far larger.²⁹ Experts have pointed out that any oil well blowout spews hundreds of chemicals into the air, water and ground, contaminating the impact zone and surroundings. These carcinogenic compounds get widely

diffused in water, soil, sediments and air. They do not get photochemically and biologically oxidised or decomposed and hence their accumulation in these systems is very high.³⁰

The high seismic nature of this area where the oil wells operate adds to the concern. The whole region has been subjected to frequent changes in morphology owing to recurrent earthquakes. These earthquakes are known to have caused extensive landslides and ground fissuring, amongst other effects, in the morphology. The region is known to have experienced several high magnitude earthquakes within a short period. Thrusts, faults and folds are a common characteristic of the region, exacerbating the concerns of oil drilling in the region, where sediments and rocks of the region have been experiencing compressive forces. Owing to the high seismic activity in the area, there have been demands for a comprehensive impact assessment of the accident site and the entire OIL field operation in biodiversity rich areas of this region.³¹

Population Displacement and Loss of Livelihood

Wetlands and rivers are a critical lifeline for the local communities in this area. They are dependent on the wetland systems for livelihood as well as consumption. The region around the Maguri-Motapung wetland had developed as an eco-tourism hub. The accumulation of condensate and oil in the Maguri-Motapung wetland and the Dangori River in the area has raised fears about the livelihood of the fishing communities and the future of eco-tourism in the area. The blowout and the subsequent fire displaced thousands of people from Baghjan and some neighbouring villages. They were crammed into relief camps in the nearby areas, waiting for compensation. The well blowout adversely affected the farmers in the area as several hectares of agricultural land were damaged by oil spill and fire. Several small tea plantations that belong to the local people were burnt down. People also complained of imminent health hazards owing to their close proximity to the site of the fire. The WII Report cited that people in the area had reported severe breathing difficulty, headache and nausea.³² However, Oil India Limited has denied any long-term impact from the oil spill.³³ The Baghjan incident has also resulted in gross human rights violations in the face of the COVID pandemic. Rehabilitation and restoration of the livelihoods and health of the local communities remains a crucial issue that needs to be taken care of by the concerned stakeholders in authority. The National Green Tribunal had laid down rules for compensation but the human costs

involved in the short and long run will not be easy to compensate.

Responses to the Environmental Consequences

State Response

The State Government of Assam had ordered a high-level probe two days after the oil well caught fire and had directed the probing body to inquire into the causes leading to the incident and submit a report within fifteen days. Following the incident, announcements pertaining to the development of the Baghjan area like setting up of a model hospital, a veterinary hospital, a model higher secondary school, development of the Tinsukia-Baghjan road, conversion of the Maguri-Motapung Beel/Wetland into an international tourist destination, provision for financial assistance to women's Self-Help Groups (SHGs) of the area and setting up a skill development centre were made by both OIL and the State Government. The Additional Principal Conservator of Forest (Wildlife) was asked to conduct a study on the impact of the explosion on the environment and ecology of the surrounding areas, including on flora and fauna in the adjacent Dibru-Saikhowa National Park. In the report submitted by the Additional Principal Conservator of Forest (Wildlife) to the Government of Assam, it was clearly pointed out that the Baghjan incident was not "an act of God" rather it was the result of human error. Some of the major recommendations provided in the report were the creation of a special fund to meet the cost of such ecological disasters in future, setting up of an Institute of Wildlife Health and Research, creation of river patrol and other infrastructure for Dibru-Saikhowa National Park, rejuvenation plan for Maguri-Motapung Beel, setting up of a Centre of Excellence for Resource Studies and Stimulation, people-centric infrastructure development, life, health and property insurance based on hazard risk zonation, modernization of Makum Timber Treatment Plant, etc.³⁴ In accordance with the National Green Tribunal (NGT)'s direction, the State Government proposed relief of Rs. 25 lakhs to 161 families and Rs. 20 lakhs to 439 affected families in the Baghjan incident.

Response from OIL and other Allied Agencies

In its initial statement, OIL mentioned that the blowout happened while work over operations was going on to produce gas from a new oil and gas-bearing reservoir. The release highlighted that all arrangements were being made to bring the event under control by

means of adequate water spraying and installing BOP. OIL, along with the district administration, had made efforts to vacate the local residents from the vicinity of the well to safe places. On the 8th of June, a group of three foreign experts from the Alert Disaster Control, Singapore, reached Assam and, along with the disaster management teams of Oil India Limited and ONGC, was involved in the process to plug the blowout. Later, another team of three more foreign experts reached Baghjan and was involved in the dousing operations.

The company carried out an internal inquiry and placed two officials who were responsible for the well under suspension. It had also issued a show cause notice to John Energy Private Limited, the outsourced private operator of the gas well. A radio bulletin called 'Baghjan Barta' was broadcasted by All India Radio (AIR), Dibrugarh, to inform the stakeholders about the progress in capping the well at Baghjan, and related activities. Several studies were conducted by OIL with the help of other bodies to monitor air quality, water quality, noise level and presence of gas (lower explosive limit), and an Environment Impact Assessment was carried out within the vicinity of Baghjan, including the Dibru-Saikhowa National Park and the Maguri-Motapung Beel. After the final abandonment of the well, OIL mentioned that the company had already deposited the requisite amount in the office of the Deputy Commissioner (DC), Tinsukia, towards compensation to all concerned, as per the interim order of Hon'ble NGT and advice of DC, Tinsukia.³⁵

Responses from Quasi-judicial Bodies: National Green Tribunal and Pollution Control Board Assam

A committee of experts was constituted by the National Green Tribunal (NGT) to look into the blowout and explosion in Baghjan. The committee pointed out three probable reasons for the blowout in the eighty-nine pages long preliminary report submitted to the NGT's principal bench in New Delhi. First, there was a deficiency in understanding the gravity of a critical operation like removal of blowout preventer without having a confirmed and tested secondary safety barrier. Second, there was a lack of proper planning of critical operations and a clear mismatch between planning and its execution at site, and deviations from the standard operating procedure. Third, there were serious deficiencies in the proper level of supervision of critical operation at the well site both from the Contractor as well as from OIL. The report further stated that on the day of the blowout and subsequent explosion, OIL did not

have the mandatory Consent to Establish and Consent to Operate under (i) Section 25 and 26 of the Water (Prevention and Control of Pollution) Act, 1974 (ii) Section 21 of the Air (Prevention and Control of Pollution) Act, 1981 and (iii) Authorisation Rule 6 of the Hazardous Waste (Management, Handling and Trans boundary Movement) Rules, 2016. The committee observed that the blowout and subsequent explosion had led to extensive damage to both the publicly-owned resources of the Maguri-Motapung Wetland and Dibru-Saikhowa National Park. In the preliminary report, the expert committee recommended scrutiny of all existing projects of OIL in Assam in view of serious and grave infraction against the statutory environmental safeguards.³⁶ Oil India Limited (OIL) had opposed the committee's findings, saying it was based on secondary and unverifiable data as no site visit was undertaken. However, the National Green Tribunal had rejected the objections raised by OIL to the preliminary report filed by the committee.

The tribunal ordered that an initial amount of Rs. 25 lakhs was to be released immediately to the affected under category (i), whose information was already available with the Office of the District Administration. For the affected families under category (ii), the amount of Rs. 10 lakhs was to be released immediately, within an outer limit of fifteen days, based on the information already available with the Office of the District Administration. The compensation amount, if any already paid, was to be deducted from the aforesaid amount of interim compensation.

On 3rd of November, 2020, a National Green Tribunal committee found that the Baghjan Oil Field, apart from twenty-six other fields, was operating without mandatory environmental clearances when the blowout occurred. OIL did not have the required consent for drilling and testing of hydrocarbons in the seven locations under the DSNP area. Consent was granted only for the years 2007-2008, 2008-2009, 2012-2013, 2014-2015 and 2018-2019. The panel recommended Rs. 25 lakhs compensation to 173 families and Rs. 20 lakhs to 439 less-affected families.³⁷

Assam's State Pollution Control Board (SPCB) initially directed OIL to close down production and drilling at its Baghjan Oil Field, accusing the PSU of carrying out operations without SPCB's consent; and to take all necessary measures for extinguishing the blowout. However, after three days of serving the 'closure notice', SPCB withdrew its order and asked OIL to submit a detailed time-bound environmental management plan within fifteen days. The second condition required OIL to apply for Consent to Operate (CTO)

under Section 25 of the Water (Prevention and Control of Pollution) Act, 1974, and Section 21 of the Air (Prevention and Control of Pollution) Act, 1981, separately for each drilling, each production operation and each other installation, along with environmental management plan and requisite documents, within a month.

People's Anger: A Form of Protest

Against OIL

Oil India Limited's alleged inept handling of the disaster which has displaced thousands of people and forced them into cramped relief camps in the middle of the COVID pandemic evoked strong protests from several quarters. Various environmental groups and locals have expressed anger about the company's disregard for environmental regulations that have resulted in irreparable damage to the flora and fauna of the surrounding wetland. Over the years, there has been resentment against the company's extraction of oil and gas from the lands of the people. After the Baghjan disaster, the very existence of the various operations of OIL in the area has irked the local inhabitants. This anger had translated into sit-in protests and blockade of production in other nearby rigs operated by OIL. On several occasions, people have staged protests due to delay in getting compensation.

Political scientist Sanjib Baruah observed that the latest round of anger against OIL is perhaps a sign that some segments of Assamese society are beginning to see the reality of slow violence that extraction projects inflict on local communities. In this regard, he has pointed out that, "once upon a time Assam had witnessed popular protests demanding oil refineries, broad-gauge lines and bridges over the Brahmaputra. But when they are face to face with the raw reality of slow violence, the promise of future development no longer has the same appeal".³⁸

Against the State

Baghjan has rekindled the pressing issue in Assam regarding control over resources and the role of the state in this. It is worthwhile to note that the people participating in these protests have highlighted the fact that they have had to pay a very high price for the extraction of resources that have not benefitted their lives. They argue that there are very limited avenues for the economic and political emancipation

of communities living in the resource extraction regions.

Voices from Environmental Groups

In the aftermath of the Baghjan blowout, several environmental groups and local environmentalists have vociferously criticised OIL and there have been discussions regarding the state of environmental governance in the region. Various environmental groups and non-governmental organisations (NGOs) in 2012 had opposed the move of the National Board for Wildlife (NBWL) to grant clearance to OIL's projects for laying crude oil pipelines. Most of these pipelines were to run within tea estates and other non-forest lands, including the sensitive ecosystem of Maguri-Motapung Wetland. The clearance was withheld and the members of the Standing Committee were asked to undertake a site-inspection and file a report. But in 2014, the pipeline project was summarily cleared despite documentation by the Committee regarding the violations committed by OIL³⁹.

The National Green Tribunal has constituted a committee to look into the Baghjan incident after environmentalist Bonani Kakkar and the Wildlife and Environment Conservation Organization, an Assam-based non-profit organisation, approached the tribunal. In the preliminary report submitted to the tribunal, the people and the environmentalists pointed out that the concerned oil well had been established illegally without mandatory prior permissions. No public hearings or consultations were held. EIA protocols such as the Environment Management Programme (EMP) had never been implemented in the area by OIL despite having obtained permission under the EIA regime.

In a detailed letter, Wetlands International has provided several observations and recommendations to the Committee, that floodplain wetlands like Maguri-Motapung are crucial for the functioning of connected river ecosystems. They expressed apprehension that damage due to condensate in the wetland would also directly impact the Dibru River ecosystem. Several environmental groups have argued that there is a need for the restoration of the wetland as per the principles and guidelines for wetland restoration adopted by Resolutions of the Ramsar Convention, and to conduct a comprehensive ecological monitoring of the Maguri-Motapung Wetland in order to assess the impact of the oil spill and fire. On the policy front, there were recommendations that all oil and gas related activity in and around the area of influence of the wetland and the Dibru Saikhowa National Park should be prohibited due to the risk

they pose to sensitive ecosystems.⁴⁰

Conclusion

The ecological disaster at Baghjan Oil Field brings to light the dynamics of resource exploitation at the frontier and its adverse consequences on the environment and the local population. The nationalisation of the hydrocarbons sector and the subsequent commodification of these resources at the hands of the large corporations reaffirm the priorities of these resources for the nation's economic development model but also highlight the debates at two levels as pointed out earlier, the relationship between the central and sub-national authorities in the context of resource-sharing narrative on the one hand and the conflict between the 'national interest' priority of the State and the rights of the indigenous communities over these resources on the other hand. These debates have resurfaced in the resource frontier of North-East India time and again. The Baghjan blowout incident has rekindled interest in the uneven nature of the hydrocarbon extraction cycle and its adverse impact on the ecology of the region in case of a scientific failure; and on the local population which then becomes a 'resource curse' for the frontier population. Moreover, unscientific planning of resource extraction in the frontier region without hearing local concerns, and growing commodification of natural resources at the hands of corporate bodies at the cost of local environment and livelihood, is destined to produce such conflict-of-interest between the indigenous communities and the statist stakeholders. To conclude, in the resource frontier of India, there have not been sufficient measures taken to win over the confidence of the concerned local stakeholders and the genuine grievances of the people at the margin remain to be adequately addressed.

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