

Nigerian Public Safety Threat: Exorcising the “Witchcraft” of Recurring Safety Incidents

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ABSTRACT

Recurring safety incidents constitute a significant public safety threat in Nigeria. Petrol tanker explosions, pipeline fires, generator-related carbon monoxide poisoning, domestic and electrical fires, electrocution, soakaway-pit fatalities, drowning, chemical ingestion, slips and falls, gas-related incidents, and unsafe electrical practices continue despite regulations, safety campaigns, emergency-response systems, and previous experience. This article examines the persistence of these incidents between 2005 and 2025, identifies factors responsible for their recurrence, and proposes a systems-based framework for reducing their frequency and consequences. A hybrid approach involving longitudinal review of available safety statistics, published incident evidence, systems-safety perspectives, and policy analysis was adopted to examine recurring patterns across major public safety hazards. Particular attention is given to human and organizational factors, inadequate infrastructure and maintenance, regulatory and enforcement gaps, socioeconomic pressures, fragmented institutional responsibilities, weak incident reporting, and failure to convert investigations into sustained preventive action. The article also examines sociocultural perceptions, particularly the tendency to attribute repeated or unexplained incidents to fate, supernatural influence, or “witchcraft.” This expression is used metaphorically to describe the apparent mystery surrounding preventable incidents whose causal mechanisms are inadequately investigated, communicated, and controlled. The analysis argues that recurrence is fundamentally a systems-learning and governance problem rather than evidence of uncontrollable forces. A National Safety Learning and Prevention Framework is proposed, incorporating integrated incident reporting, systematic causal investigation, engineering controls, regulatory coordination, public safety education, community participation, corrective-action tracking, and verification of lessons learned. The article concludes that Nigeria can reduce recurring safety incidents by transitioning from reactive response to proactive prevention, institutional learning, evidence-based communication, and continuous safety improvement.

Keywords: Public safety; recurring safety incidents; safety culture; accident prevention; witchcraft; institutional learning; risk perception; systems safety.

INTRODUCTION

Recurring safety incidents in Nigeria constitute a significant and persistent threat to public safety as these incidents have resulted in extensive fatalities, injuries, and socioeconomic losses over the past decades [1],[2]. The incidents include petroleum tanker fires and explosions, pipeline ruptures and explosions, generator-related carbon monoxide poisoning, domestic electrical fires and electrocutions, and drowning due to poorly managed drainage systems. Despite existence of regulatory bodies and repeated public awareness campaigns, the recurrence of similar incidents suggests deep systemic failures in safety governance,

institutional learning mechanisms, risk perception, and infrastructure resilience across the different societal sectors [1],[2]. A number of studies have indicated poor status of public safety in Nigeria [3]-[5].

Petroleum tanker crashes and the ensuing explosions constitute one of the most persistent and catastrophic categories of recurring safety incidents in Nigeria's public safety landscape [1]–[3]. Empirical investigations and national safety records consistently demonstrate that these events produce not only immediate fatalities but also extensive injuries, displacement of surrounding communities, environmental degradation, and destruction of public and private infrastructure [1],[4],[5]. Longitudinal analyses of tanker fire and explosion events across a 15- to 16-year period document over one hundred major cases nationwide, resulting in thousands of deaths and injuries, with recent years reflecting an upward trajectory in fatality counts [1],[2],[6]. Government situational reports and peer-reviewed assessments further confirm that tanker-related incidents rank among the deadliest forms of road traffic disasters in Nigeria [3],[4],[7].

A recurring aggravating factor in these explosions is the prevalence of high-risk human behaviours, particularly the practice of attempting to collect or “scoop” spilled petroleum products following tanker crashes. Multiple empirical studies identify such behaviours as significant contributors to casualty amplification during post-crash events [1],[2],[8]. Human factors - including inadequate driver training, fatigue, speeding, poor hazard perception, and community risk-taking behaviour - have been shown to account for a substantial proportion of tanker crashes and associated fatalities [1],[6],[9]. These findings reinforce broader safety science literature indicating that socio-behavioral vulnerabilities, when combined with hazardous materials transport, dramatically elevate disaster severity [8]-[10]. Despite the existence of regulatory frameworks, road safety enforcement mechanisms, and emergency management agencies, the persistence and increasing severity of tanker explosions indicate systemic weaknesses in national safety learning systems, risk communication strategies, and institutional accountability structures [3],[7],[10].

The structural vulnerability of Nigeria's petroleum transportation and distribution system further compounds this risk profile. Official government data indicate that a significant majority - often estimated at approximately 70–80% - of refined petroleum product distribution occurs via road transport using tanker trucks due to limited pipeline functionality and rail alternatives [11]. Peer-reviewed transport safety analyses associate tanker crashes with mechanical failures, overloaded vehicles, poor vehicle maintenance, deteriorating road infrastructure, insufficient traffic control systems, and weak regulatory enforcement [6],[9],[12]. Nigeria's road network, characterized in several infrastructure assessments as under-maintained and overstressed relative to freight demand, provides limited safety redundancy for hazardous material transport [11]-[13]. The combination of ageing tanker fleets, substandard safety compliance, and infrastructural decay creates a high-risk transport ecosystem in which catastrophic events are statistically more probable [6],[9],[13].

Beyond road-based tanker disasters, recurrent pipeline explosions along Nigeria's extensive petroleum infrastructure further illustrate systemic safety deficiencies. Historical analyses of major pipeline incidents - including the Abule Egba and Ijegun explosions of 2006 and 2008 respectively - document extensive fatalities, property destruction, and long-term community disruption [14]–[16]. Scholarly assessments attribute many of these incidents to pipeline vandalism, illegal tapping, corrosion, weak surveillance systems, and delayed emergency response coordination [14],[17],[18]. Government investigative reports similarly acknowledge that inadequate infrastructure protection and insufficient rapid response capacity contribute to escalated casualty outcomes during pipeline rupture events [3], [7], [18].

Collectively, these recurring tanker and pipeline explosions reveal persistent structural and governance weaknesses within Nigeria's hazardous materials management system. Although regulatory reforms and institutional frameworks have evolved over time, empirical evidence suggests that enforcement gaps, limited preventive engineering controls, and inadequate public risk awareness continue to undermine effective accident prevention [6],[10],[17]. The repeated manifestation of similar accident typologies across decades signals not isolated anomalies but systemic deficiencies in national safety governance, institutional learning, and infrastructure resilience.

Illegal oil refining sites and associated explosions have emerged as yet another dimension of recurring safety incidents [18]-[20]. Improvised refineries and unregulated extraction activities have caused severe safety breaches, often without formal oversight or adherence to engineering controls [18][19]. For instance,

explosions at illegal oil refinery sites in Southern Nigeria have led to significant fatalities and environmental harm, underscoring the multifaceted nature of recurring accident risks within the petroleum value chain [4]. These events further reveal how regulatory and enforcement failures compound physical hazards with socio-economic pressures, promoting unsafe practices that escalate community exposure to risk.

A systems safety perspective underscores that many of these incidents share common causal mechanisms, including the interplay of human, technical, organizational, and environmental factors. In the case of petroleum tanker explosions, detailed analyses show that human factors—such as risk-taking behaviour and insufficient driver training—mechanical defects, and unsafe practices like scooping fuel from wreckage are major contributors to both the frequency and severity of accidents [1]. From a systems lens, weak enforcement of safety standards, poor infrastructure, lack of effective incident investigation and institutional learning, and inadequate public risk communication represent deeper systemic contributors that allow these hazards to recur.

Recurring safety incidents are not well confined to the petroleum transport and infrastructure sectors alone. In Nigeria's urban and peri-urban areas, generator-related carbon monoxide (CO) poisoning has become an increasingly significant cause of unintentional fatalities. Due to persistent electricity supply challenges, many households and businesses rely heavily on portable generators, often operating them in poorly ventilated spaces, which creates lethal conditions for CO accumulation. While globally recognized as a major public health risk, carbon monoxide poisoning incidents have been insufficiently studied in the Nigerian context, further reflecting a gap in systematic safety data and targeted preventive intervention strategies.

Analogously, domestic electrical fires and electrocution incidents continue to threaten lives at household and community levels. Poor electrical wiring, overloaded sockets, unsafe use of candles, and substandard electrical equipment increase the probability of domestic fires that result in fatalities and property losses. Although burn and electrical injury patterns are widely documented in safety science literature, Nigeria lacks comprehensive, centralized reporting frameworks that consistently capture and analyse such incidents to inform national safety policy design and implementation.

Understanding why these similar types of incidents recur despite existing regulatory frameworks requires an examination of systemic failures in institutional risk learning and safety culture. Safety culture refers to the shared values, beliefs, norms, and behaviours that influence safety performance within a society or organization [5]. In many high-hazard industries and national safety regimes, strong safety culture is correlated with reduced accident frequency and severity, because it promotes continuous learning, accountability, and risk awareness [6]. In contrast, recurring safety incidents in Nigeria suggest a pervasive lack of such culture, where lessons from past incidents frequently fail to translate into lasting policy reforms or behavioural change.

The persistence of unsafe practices and repeated incidents also contributes to sociocultural narratives that attribute causality to external or supernatural forces, commonly described in everyday discourse as “witchcraft” or spiritual interference. This perception can be understood as part of a broader process by which communities attempt to explain complex, harmful phenomena in the absence of transparent information and meaningful involvement in safety governance. When structural and regulatory deficiencies remain opaque or inaccessible, cultural explanations often fill the interpretive vacuum, reducing accountability and undermining preventive efforts.

Acknowledging that these recurring incidents are not random but predictable outcomes of interacting systemic weaknesses is crucial. Scholarly research suggests that effective accident prevention requires integrated approaches that combine engineering controls, regulatory enforcement, safety education, and institutional learning mechanisms grounded in systems safety theory [7]. Systems safety theory emphasizes the need to analyse accidents within their broader socio-technical context, focusing not only on proximate causes but also on latent failures within organizational designs and governance structures.

This article therefore advances the argument that Nigeria's recurring safety incidents are best addressed through a national systems-based safety transformation framework that promotes continuous learning, robust enforcement, infrastructure resilience, and public risk literacy. By synthesizing longitudinal accident data with findings from peer-reviewed research and government publications, the study highlights the multifaceted

nature of recurring safety risks and offers evidence-based insights for comprehensive prevention strategies tailored to the Nigerian context.

AIM OF STUDY

The primary aim of this study is to analyze the recurring safety incidents in Nigeria over the past two decades, identify systemic and sociocultural factors contributing to their persistence, and develop evidence-based recommendations for national safety transformation to prevent future occurrences.

The specific objectives for the study were as follows:

1. To examine the historical trends of recurring safety incidents in Nigeria (2005–2025), including petroleum tanker explosions, pipeline ruptures, generator-related carbon monoxide poisoning, domestic fires, electrocution, drownings, and chemical ingestion incidents, using government publications and peer-reviewed research.
2. To identify the root causes and systemic contributors to these recurring incidents, including infrastructural deficiencies, regulatory enforcement gaps, human behavioral factors, institutional learning failures, and unsafe practices.
3. To analyze sociocultural perceptions and risk narratives, including the attribution of incidents to “witchcraft,” and their influence on safety behaviour, policy implementation, and public engagement with preventive measures.
4. To evaluate the effectiveness of past safety interventions, policies, and regulatory frameworks, highlighting successes, gaps, and reasons for recurring failures.
5. To develop a systems-based conceptual framework for national safety transformation, integrating safety governance, institutional learning, engineering controls, public education, and regulatory enforcement to reduce the recurrence of preventable incidents.
6. To propose actionable recommendations for policymakers, regulatory agencies, industry stakeholders, and households, aimed at reducing fatalities, injuries, and economic losses associated with recurring safety incidents in Nigeria.

METHODOLOGY

Research Design

This study adopted a critical review of literature and documented data on recurring public safety incidents in Nigeria, with particular emphasis on the period 2005-2025. The approach was considered appropriate because the study sought to examine the persistence, patterns, causes, sociocultural interpretations, and institutional responses associated with recurring safety incidents across several hazard categories. Rather than focusing on a single incident type, the review adopted a broad multidisciplinary perspective encompassing petroleum tanker accidents, pipeline explosions, gas-related incidents, generator-related carbon monoxide exposure, electrical fires and electrocutions, chemical poisoning, drowning, falls, soakaway pit incidents, and other recurrent public safety events.

The critical review approach provided an opportunity to compare evidence from different sources, identify recurring causal themes, examine changes in incident patterns over time, and assess why lessons from previous incidents have not consistently resulted in effective preventive action. The analysis was particularly concerned with the apparent contradiction between the availability of safety regulations and knowledge of established hazards and the continued recurrence of substantially similar incidents across Nigeria.

Literature Search Strategy

A structured literature search was undertaken using ScienceDirect, Google Scholar, and JSTOR,

supplemented by searches of relevant government and institutional websites and generic searches across reputable research platforms. Government publications and official reports were specifically searched through the websites of relevant Nigerian agencies, including the National Emergency Management Agency (NEMA), Federal Road Safety Corps (FRSC), National Bureau of Statistics (NBS), Nigerian Upstream Regulatory Commission (NUPRC), Nigerian Midstream and Downstream Petroleum Regulatory Authority (NMDPRA), National Oil Spill Detection and Response Agency (NOSDRA), Federal Fire Service, and other relevant ministries, departments and agencies.

The search strategy combined keywords relating to incident type, causes, recurrence, safety behaviour, risk perception, institutional learning, and Nigeria. Examples of the search terms and Boolean combinations used included:

“recurring safety incidents” AND Nigeria; “public safety incidents” AND Nigeria; “accidents” AND Nigeria AND fatalities; “tanker accidents” OR “tanker explosions” AND Nigeria; “petroleum tanker” AND accidents AND Nigeria; “pipeline explosion” OR “pipeline disaster” AND Nigeria; “pipeline vandalism” AND safety AND Nigeria; “gas explosion” OR “LPG explosion” AND Nigeria; “generator” AND “carbon monoxide” AND Nigeria; “carbon monoxide poisoning” AND Nigeria;

“electrical fire” OR electrocution AND Nigeria; “overloaded socket” AND fire AND Nigeria; drowning AND Nigeria AND “open drain”; “soakaway pit” AND death AND Nigeria; “chemical ingestion” AND poisoning AND Nigeria; “slips and falls” AND Nigeria; “safety culture” AND Nigeria; “risk perception” AND safety AND Nigeria; “fatalism” AND safety behaviour AND Nigeria; “witchcraft” AND accident perception AND Nigeria; “incident investigation” AND “lessons learned” AND Nigeria; “safety governance” AND Nigeria; and “institutional learning” AND accident prevention AND Nigeria.

Search terms were combined and modified across databases according to the indexing and search functions of each platform. Reference lists of relevant publications were also examined to identify additional sources that met the study criteria.

Inclusion and Exclusion Criteria

Sources were considered eligible for inclusion where they satisfied one or more of the following criteria:

- They addressed public, occupational, transportation, petroleum, electrical, environmental, domestic, or community safety incidents occurring in Nigeria.
- They provided empirical data, statistical information, documented incident evidence, causal analysis, or discussion relevant to recurring safety incidents.
- They examined factors contributing to accidents, injuries, fatalities, unsafe behaviour, risk perception, safety culture, regulatory performance, or institutional learning.
- They were peer-reviewed journal articles, scholarly publications, government reports, official agency publications, or credible documented reports of significant public safety incidents.
- They provided information relevant to the study period, particularly evidence relating to 2005–2025.
- Publications addressing sociocultural, religious, fatalistic, or supernatural interpretations of accidents and other adverse events were included where they contributed to understanding public perceptions of safety and preventability.
- Sources providing historical information on major Nigerian safety incidents were included where they contained sufficiently verifiable information for the purposes of the review.

Sources were excluded where they were unrelated to Nigerian public safety, duplicated information from another source, lacked sufficient information to establish the relevance or credibility of the reported incident,

or consisted primarily of unsupported opinion or promotional material. Where multiple reports described the same incident, the most authoritative or information-rich source was retained for the principal analysis. Newspaper reports were used primarily to document significant incidents and their immediate consequences, while peer-reviewed literature and official government publications were prioritized for causal interpretation, statistical analysis, and conclusions regarding safety trends.

Screening and Study Selection

The literature-selection process involved three sequential stages: title screening, abstract screening, and full-text screening. Initially, records identified through the database and supplementary searches were examined by title to determine their potential relevance to the study objectives. Clearly irrelevant records were removed at this stage. The abstracts of potentially relevant publications were subsequently examined to determine whether they contained information concerning Nigerian safety incidents, their causes, consequences, recurrence, behavioural dimensions, regulatory issues, or institutional responses.

Publications that remained potentially relevant after abstract screening were subjected to full-text screening. At this stage, the researchers assessed the methodological relevance, geographical context, incident type, quality of evidence, publication characteristics, and contribution to the objectives of the study. Sources that met the predefined inclusion criteria were retained for detailed review.

Following the screening and selection process, 56 sources were reviewed, comprising peer-reviewed journal articles, government and institutional publications, and selected newspaper reports documenting major public safety incidents. Greater evidentiary weight was assigned to peer-reviewed research and official government publications, particularly when determining incident trends, causal relationships, and policy implications. Newspaper reports were used principally as supplementary evidence for significant incidents where comprehensive peer-reviewed or official datasets were unavailable.

Data Extraction and Thematic Analysis

Relevant information was extracted from the selected sources according to recurring themes rather than through statistical meta-analysis. The principal information categories included incident type, year of occurrence, geographical location, fatalities, injuries, property or infrastructure losses, immediate causes, underlying causes, contributing human factors, regulatory issues, emergency-response characteristics, public behaviour, sociocultural interpretations, and lessons identified from previous incidents.

The extracted evidence was subjected to comparative and thematic analysis. Similar incidents were compared across different periods and sectors to identify common causal patterns and evidence of recurrence. The analysis also compared the explanations provided by different sources and examined whether recommendations from previous incidents appeared to have been translated into preventive measures.

Particular attention was given to recurring themes involving human error and unsafe behaviour, infrastructure deterioration, inadequate maintenance, weak regulatory enforcement, socioeconomic pressures, poor safety awareness, fragmented institutional responsibilities, inadequate incident reporting, ineffective emergency response, and failure to institutionalize lessons learned. The analysis also examined the relationship between sociocultural and fatalistic interpretations of incidents and perceptions of preventability.

Where numerical data were available, incident frequencies, fatalities, injuries, and temporal patterns were extracted and compared to identify broad trends between 2005 and 2025. Because the reviewed datasets originated from different institutions and were not consistently collected using identical definitions, the statistical analysis was primarily descriptive. The study therefore avoided aggregating heterogeneous datasets where differences in definitions, reporting coverage, or methodologies could produce misleading estimates.

Quality and Source Credibility

Source credibility was considered during the selection and interpretation of evidence. Peer-reviewed journal articles and official government publications were given priority because they generally provide stronger methodological and institutional bases for establishing causal relationships and statistical trends. Government publications were particularly important for official incident records, regulatory information, emergency reports, and national statistics. Newspaper reports were treated as supplementary sources and were not relied upon as the sole basis for major causal conclusions where peer-reviewed or official evidence was available.

For the scholarly literature, emphasis was placed on recent publications, particularly those published within the preceding ten years, while older publications were retained selectively where they provided important historical evidence or foundational information necessary for understanding long-term recurrence. Sources with persistent identifiers, including DOI records, were preferentially used where available.

Data Synthesis

The evidence was synthesized through comparison, contrast, pattern identification, and thematic interpretation. The synthesis sought to answer four principal questions: (1) What categories of safety incidents repeatedly occur in Nigeria? (2) What statistical patterns and trends are evident between 2005 and 2025? (3) Why do substantially similar incidents continue to recur despite previous experience and regulatory interventions? and (4) What institutional, engineering, behavioural, sociocultural, and governance measures could interrupt the cycle of recurrence?

The resulting synthesis informed the development of the article's central argument that recurring safety incidents should be understood as manifestations of weaknesses in a wider safety system rather than as isolated events. It also provided the basis for the proposed recommendations on integrated incident reporting, institutional learning, engineering controls, regulatory coordination, public safety education, community participation, and evidence-based risk communication.

Ethical Considerations

The study relied exclusively on secondary information contained in publicly available research articles and grey literature such as government publications and institutional reports, and documented incident reports. No interviews, questionnaires, experiments, personal records, confidential databases, or other forms of private participant data were collected. Consequently, the study did not involve direct human-participant research or access to personally identifiable information and did not require primary-data ethical approval. Nevertheless, appropriate attention was given to accurate representation of published evidence, source attribution, and avoidance of unsupported claims.

STATISTICAL TRENDS OF RECURRING SAFETY INCIDENTS (2005–2025)

The statistical assessment of recurring safety incidents in Nigeria between 2005 and 2025 presents a complex picture of persistent exposure to preventable hazards across the transportation, petroleum, energy, electrical, domestic, and environmental domains. A major challenge in interpreting the national safety situation is the absence of a single, integrated national database that consistently captures all categories of public safety incidents using standardized definitions and reporting criteria. Data are instead dispersed among institutions such as the Federal Road Safety Corps (FRSC), National Emergency Management Agency (NEMA), petroleum-sector regulators, state emergency management agencies, fire services, hospitals, and academic researchers. Consequently, while some categories - particularly road traffic crashes - have relatively structured datasets, other incidents, including generator-related carbon monoxide poisoning, domestic electrocution, chemical ingestion, soakaway pit deaths, drowning in open drainage systems, and household slips and falls, are substantially under-reported [21][22]. The apparent trend should therefore be interpreted as a combination of the true occurrence of incidents, improvements or weaknesses in reporting, and differences in institutional data collection practices [23]–[25].

Among the most consistently documented recurring hazards is the petroleum tanker crash and explosion. A 2025 longitudinal study that reviewed 171 tanker fire and explosion incidents over a 16-year period documented 1,822 deaths and 811 injuries, with 2024 recording the highest annual fatality total of 294 deaths within the study period [26]. The study also classified the societal risk associated with the incidents as unacceptable, indicating that tanker disasters are not isolated events but represent a significant and recurring public safety risk. The trend is particularly concerning because the underlying causes - including human error, unsafe driving practices, vehicle defects, poor road conditions, and risky public responses to fuel spillages - remain substantially unchanged over time [26], [27]. Government emergency reports continue to demonstrate the recurrence of major tanker incidents. For example, NEMA reported that a tanker explosion in Agaie, Niger State, in September 2024 occurred after a petrol tanker collided with a trailer carrying travellers and cattle, resulting in at least 61 confirmed deaths at the time of its initial report [28]. NEMA's subsequent national safety communication in January 2025 similarly identified tanker explosions as a continuing national menace associated with reckless driving, poor vehicle maintenance, inadequate road infrastructure, human error, and sabotage [27].

The tanker-incident trend illustrates an important distinction between incident frequency and incident severity. Even where the annual number of crashes does not consistently increase, a single event can produce an exceptionally high number of casualties when large quantities of highly flammable petroleum products are released in densely populated or heavily trafficked environments. The 2024 tanker disaster in Jigawa State, for example, demonstrated how the combination of a hazardous-material release, public gathering around the overturned tanker, and ignition of spilled fuel can transform a road crash into a mass-casualty event. Such incidents indicate that Nigeria's public safety burden cannot be assessed solely by counting accidents; the potential consequence of each incident must also be considered [26], [27], [29].

Road traffic crashes more generally reinforce this concern. FRSC's continuing publication of annual road-crash data demonstrates that road transportation remains a major source of preventable death and injury in Nigeria, with heavy commercial vehicles constituting an important risk category [23]. The recurrence of tanker crashes within the broader road safety system suggests that the problem is connected to systemic weaknesses in vehicle inspection, driver competence, road infrastructure, enforcement, and emergency response. Thus, the statistical pattern observed between 2005 and 2025 should not be understood merely as a series of unrelated transportation accidents but as an indicator of a persistent national risk environment in which known hazards repeatedly interact with known vulnerabilities [23], [26], [27].

A similar pattern is observable in petroleum pipeline and related hydrocarbon incidents. Nigeria's petroleum infrastructure has historically been exposed to risks associated with equipment failure, corrosion, pipeline vandalism, illegal tapping, crude-oil theft, and unauthorized refining activities [30][31]. However, unlike road traffic crashes, comprehensive annual national statistics covering all pipeline explosions and associated fatalities over the entire 2005–2025 period are difficult to establish from publicly accessible official datasets. This limitation itself represents an important finding: the absence of a unified longitudinal incident database constrains the country's ability to identify trends, compare risk categories, and systematically evaluate whether interventions are working. Nevertheless, recurring reports of pipeline leaks, fires, explosions, and illegal-refining incidents demonstrate that petroleum infrastructure continues to generate significant safety and environmental risks [24], [32], [33].

The statistical pattern of domestic and community-level incidents is even more difficult to quantify. Fires associated with cooking gas, electrical faults, overloaded sockets, candles, generators, and other household ignition sources occur frequently across Nigerian communities, but national datasets that combine incident frequency, cause, location, injury, and fatality are limited. The result is a paradox in which highly visible disasters such as tanker explosions receive considerable media and government attention, whereas numerous smaller domestic incidents may remain statistically invisible. The cumulative effect of these smaller events may nevertheless represent a substantial public health and safety burden. The absence of reliable national statistics on household fires, electrocutions, carbon monoxide poisoning, chemical ingestion, drowning, and falls therefore should not be interpreted as evidence that these hazards are insignificant; rather, it highlights a major weakness in Nigeria's public safety surveillance architecture [24], [25].

Generator-related carbon monoxide exposure is a particularly important example of this statistical

invisibility. Nigeria's dependence on petrol- and diesel-powered generators for household and commercial electricity supply creates widespread exposure to combustion emissions, particularly when generators are operated in enclosed or poorly ventilated locations. Yet there is no readily accessible national longitudinal database that records all generator-related carbon monoxide deaths from 2005 to 2025. Individual medical and forensic reports may document cases, but these are not consistently aggregated into a national surveillance system. Consequently, the true magnitude of generator-related CO mortality is likely underestimated. This represents a critical public safety information gap because prevention depends on understanding not only how often deaths occur but also where, under what circumstances, and among which population groups they occur.

The same data challenge applies to electrical incidents. Nigeria's rapidly growing demand for electricity, combined with unreliable grid supply and extensive use of alternative power sources, creates multiple pathways for electrical fires and electrocution. Overloaded sockets, illegal connections, poor-quality electrical components, exposed conductors, defective wiring, and contact with high-voltage infrastructure are recurring hazards. However, the available statistics are often fragmented among electricity distribution companies, the Nigerian Electricity Regulatory Commission, fire services, hospitals, police authorities, and emergency management agencies. The lack of integration means that incidents may be recorded under different classifications, making national trend analysis difficult [24], [25].

From a 20-year perspective, therefore, the most important statistical finding is not simply that individual categories of incidents have increased or decreased, but that the same classes of preventable hazards have continued to reappear throughout the period. Tanker explosions documented in the 2000s have continued into the 2020s; petroleum infrastructure incidents have remained recurrent; domestic fires associated with electricity and cooking fuels continue to occur; and community-level hazards such as unsafe drainage, open pits, drowning, and chemical exposure remain present. The persistence of these hazards over two decades indicates that Nigeria's safety challenge is fundamentally a problem of recurrence and inadequate learning, rather than a shortage of knowledge about individual hazards [26], [27].

The available evidence also suggests that the period from approximately 2020 to 2025 deserves particular attention. Recent tanker incidents have demonstrated the capacity of individual events to produce mass casualties, while NEMA's emergency reports continue to document serious tanker and gas-related incidents requiring multi-agency intervention [27], [28], [34]. The 2025 NEMA report on a tanker fire along the Lagos-Ibadan Expressway, for example, described an overturned tanker carrying approximately 33,000 litres of petrol whose fire spread to several other trucks, including vehicles carrying other potentially flammable materials [34]. Although no fatalities were reported in that particular incident, the event demonstrates the potential for cascading consequences when hazardous-material transport occurs in complex traffic environments.

Overall, the statistical evidence from 2005 to 2025 points to three important conclusions. First, recurring safety incidents remain a significant and persistent component of Nigeria's public safety burden, with tanker-related disasters providing the clearest longitudinal evidence [23], [26]. Second, the severity of individual incidents can vary considerably, meaning that national risk assessment must consider both frequency and consequence rather than relying exclusively on annual incident counts [26]. Third, the lack of an integrated national public safety incident database limits the ability of policymakers and researchers to establish comprehensive longitudinal trends across all categories of incidents. This data deficiency may itself contribute to recurrence because what is not systematically recorded, analysed, and communicated is less likely to generate institutional learning and sustained preventive action [24], [25].

The central implication of the 2005–2025 trend is therefore that Nigeria's public safety challenge is not merely an issue of isolated accidents but one of persistent exposure to recurring, identifiable, and largely preventable hazards. The evidence supports a shift from reactive emergency response towards a national safety-learning model in which every significant incident generates a structured investigation, causal analysis, corrective action, responsible institutional ownership, and follow-up verification. Without such a system, the country risks continuing the cycle in which each disaster is treated as a new tragedy rather than as another manifestation of an already recognized and recurring risk.

ROOT CAUSES OF RECURRING SAFETY INCIDENTS

The persistence of recurring safety incidents in Nigeria reflects the interaction of human, technical, organizational, regulatory, infrastructural, and socioeconomic factors, rather than isolated acts of individual negligence. Evidence from studies of petroleum tanker accidents and pipeline disasters indicates that incidents frequently emerge from combinations of immediate unsafe acts and deeper latent conditions within the surrounding sociotechnical system [35]–[37]. Consequently, focusing exclusively on the person who made the final error may obscure the organizational and environmental conditions that created the opportunity for the incident to occur. This distinction is particularly important in Nigeria, where similar categories of incidents continue to occur despite repeated public warnings, regulatory interventions, and post-incident investigations [35], [36].

A. Human factors and unsafe behaviour: Studies of petroleum tanker accidents in Nigeria have associated crashes with inappropriate driving practices, inadequate risk perception, driver-related errors, and other human-factor deficiencies [35], [36]. In the petroleum pipeline environment, deliberate human activities - including vandalism, illegal tapping and crude-oil theft - have similarly been identified as important contributors to pipeline failures and associated disasters [37], [38]. However, treating these incidents simply as "human error" may lead to an incomplete diagnosis. Human behaviour is influenced by training, supervision, workload, economic incentives, organizational culture, enforcement, and the availability of safe alternatives. Thus, effective prevention must address the conditions that shape behaviour rather than merely blame individuals after an incident.

B. Inadequate infrastructure, equipment deterioration, and ineffective maintenance: Pipeline studies in Nigeria have identified technical and physical factors, including ageing infrastructure, corrosion, inadequate maintenance, and pipeline integrity problems, as contributors to pipeline failures and their consequences [37], [38]. Similarly, tanker safety research has linked the occurrence and severity of petroleum tanker crashes to road conditions, vehicle characteristics, mechanical reliability, and operational factors [35], [36]. Where roads, vehicles, pipelines, electrical installations, drainage systems, or other public infrastructure are inadequately maintained, the safety of the system becomes excessively dependent on human vigilance. Such systems are inherently vulnerable because a relatively minor deviation can escalate into a major accident when engineering safeguards are weak or unavailable.

C. Weak regulatory enforcement and fragmented safety governance: The existence of legislation, standards, regulatory agencies, and safety procedures does not automatically guarantee effective risk control. Research on Nigerian pipeline disasters has identified weaknesses in governance, security arrangements, stakeholder management, and implementation of preventive measures as important contributors to continuing risk [37], [39]. Research on stakeholder collaboration further demonstrates that pipeline safety involves multiple actors whose responsibilities overlap, including government agencies, operating companies, host communities, security organizations, emergency-management institutions, and other stakeholders [39], [40]. When responsibilities are fragmented and information is not effectively shared, regulatory gaps can develop, allowing known hazards to remain inadequately controlled.

D. Failure to learn systematically from previous incidents: An incident investigation has little preventive value when its findings are not translated into engineering improvements, revised procedures, strengthened competence requirements, regulatory changes, or verified corrective actions. Research into Nigerian pipeline disasters emphasizes the importance of collaboration, information sharing, intelligence gathering, and coordinated stakeholder action in improving disaster prevention and mitigation [39], [40]. The continued appearance of similar incident mechanisms therefore suggests that Nigeria's challenge is not simply a lack of knowledge about hazards; it is also a failure to institutionalize and apply the lessons generated from previous incidents. Recurrence can consequently be interpreted as an indicator of weaknesses in the national safety-learning system.

E. Socioeconomic conditions: Research on pipeline vandalism in Nigeria has linked the phenomenon to interacting socioeconomic, institutional, environmental, and governance conditions [37], [38]. Where communities or individuals perceive significant economic benefits from unsafe activities, warnings about potential consequences may have limited preventive influence [41][42]. Similarly, poverty, unemployment,

inadequate infrastructure, and limited access to safer alternatives can increase exposure to hazardous activities [41][42]. Effective safety policy must therefore combine enforcement with interventions that address the underlying incentives and vulnerabilities that sustain unsafe behaviour [37], [38].

Taken together, the factors discussed show that recurring safety incidents in Nigeria should be conceptualized as a sociotechnical and systems-governance problem. Human behaviour interacts with defective infrastructure, inadequate maintenance, regulatory weaknesses, socioeconomic pressures, poor coordination, and ineffective organizational learning to create conditions in which known hazards repeatedly produce similar consequences [35], [37], [39]. The appropriate response is therefore not another isolated public warning after each disaster, but a systematic national prevention strategy that identifies latent conditions, strengthens engineering controls, improves regulatory enforcement, establishes integrated incident-reporting and learning systems, assigns clear institutional responsibility, and verifies the closure and effectiveness of corrective actions. Such an approach would move Nigeria from a predominantly reactive accident-response culture toward a proactive safety-learning culture, thereby addressing the fundamental mechanisms responsible for the recurrence of preventable incidents.

SOCIOCULTURAL DIMENSIONS AND THE 'WITCHCRAFT' PERCEPTION

Safety behaviour does not occur independently of the cultural and belief systems within which individuals and communities interpret hazards [43][44]. In Nigeria, perceptions of illness, misfortune, accidents, and unexplained events may incorporate supernatural explanations alongside physical, medical, technical, or environmental explanations [45][46]. A recent Nigerian study on fatalistic beliefs found that fatalistic orientations were negatively associated with safety behaviour and were also associated with lower perceptions of the effectiveness of preventive actions [47]. Similarly, research among informal automobile artisans in Nigeria found that workers who attributed occupational health and safety problems to religious or cultural causes were more likely to perceive such problems as unpreventable, while economic insecurity also constrained their willingness and ability to adopt preventive measures [48].

The relevance of these findings to recurring public safety incidents is substantial. When an accident is interpreted primarily as an unavoidable act of fate, destiny, spiritual attack, or “witchcraft,” attention may shift away from identifiable physical and organizational causes. This can reduce the perceived value of preventive measures such as equipment inspection, safe electrical installation, appropriate ventilation, road-worthiness checks, hazard identification, or compliance with operating procedures [47], [48]. In practical terms, a person who regards an incident as predetermined may be less inclined to ask what failed, why it failed, whether warning signs existed, and what controls could prevent recurrence. The result is a potentially self-reinforcing cycle in which inadequate preventive action contributes to recurrence, while recurrence itself is subsequently interpreted as evidence that the hazard is beyond human control.

The Nigerian cultural environment is particularly relevant because supernatural explanations have been documented in several areas of social and health experience [45][46]. A review found that supernatural explanations - including witchcraft, sorcery, evil spirits, and divine punishment - were frequently reported in the literature concerning people's understanding of mental-health conditions [49]. Although mental illness is not equivalent to physical safety incidents, the finding demonstrates a broader cultural tendency in which unfamiliar, complex, or poorly understood adverse events may be interpreted through supernatural explanatory frameworks. This suggests that safety communication cannot simply dismiss culturally embedded beliefs; rather, it should provide credible alternative explanations that connect observable hazards with practical preventive actions.

The “witchcraft” metaphor used in this article therefore does not seek to ridicule religious or cultural beliefs. Instead, it describes a safety-learning problem that arises when repeated incidents are perceived as inexplicable or uncontrollable rather than as manifestations of identifiable risk. Research on Nigerian workers provides empirical support for this distinction: perceived causation influences whether people regard safety problems as preventable, while fatalistic beliefs can reduce confidence in preventive actions [47], [48]. The central concern is consequently not the existence of cultural beliefs themselves, but whether an explanatory belief discourages hazard recognition, preventive behaviour, reporting, investigation, or corrective action.

A further sociocultural dimension concerns community participation and trust. Safety interventions imposed without meaningful engagement with affected communities may be viewed as external or irrelevant, particularly where unsafe activities provide economic benefits or where communities have limited confidence in regulatory institutions. Nigerian research on occupational safety indicates that economic insecurity can constitute a significant barrier to preventive behaviour [48]. This has important implications for petroleum theft, fuel scooping after tanker crashes, unsafe generator use, informal electrical connections, and other hazardous activities. Effective intervention must therefore combine risk communication with realistic safer alternatives, community participation, and enforcement that is perceived as legitimate and consistent.

The way incidents are communicated after they occur is equally important. When media, community leaders, institutions, or officials describe repeated incidents primarily in terms of tragedy, fate, or supernatural causation without explaining the underlying hazard mechanisms, opportunities for public learning may be lost [49][50]. Conversely, communicating the cause–consequence–prevention chain can gradually replace fatalistic interpretations with a prevention-oriented safety mindset. For example, a tanker explosion should be explained not merely as a tragedy but as a sequence involving vehicle condition, road conditions, collision dynamics, fuel release, ignition sources, unsafe proximity, emergency response, and community behaviour. Similar explanations can be applied to generator-related carbon monoxide deaths, electrical fires, drowning, chemical ingestion, and falls.

The challenge, therefore, is to develop a culturally sensitive safety communication strategy that respects people's cultural context while strengthening evidence-based risk perception. Fatalistic beliefs should not be confronted through ridicule or cultural stigmatization. Instead, safety professionals, government agencies, health workers, educators, religious leaders, traditional institutions, and community organizations should work together to demonstrate that identifying physical and systemic causes does not require dismissing people's broader worldview. Evidence from Nigeria indicates that collaboration with trusted cultural and religious institutions can be useful in improving understanding and challenging harmful misconceptions [51].

Ultimately, the “witchcraft of recurring safety incidents” is best understood as a metaphor for the apparent mystery created when society repeatedly experiences preventable incidents without adequately learning from them. The persistence of fatalistic interpretations can become particularly dangerous when it reduces perceived preventability and weakens safety behaviour [47], [48]. Breaking this cycle requires a transition from fatalistic explanations to evidence-based safety learning, in which every recurring incident is treated as an opportunity to identify causes, strengthen controls, modify behaviour, improve infrastructure, and verify that corrective measures have worked.

DISCUSSION

The findings of this study demonstrate that recurring safety incidents in Nigeria should not be regarded as isolated accidents or unavoidable misfortunes, but as manifestations of persistent weaknesses within a wider sociotechnical safety system. The continued occurrence of similar incidents despite previous experience indicates deficiencies in hazard identification, risk control, regulatory enforcement, public awareness and, particularly, institutional learning. Research on Nigeria's petroleum pipeline disasters shows that the complexity of these hazards requires coordinated participation by emergency-management agencies, regulators, operating companies, security agencies, health institutions, the media, academia and host communities [52], [53]. This supports the argument that recurrence is partly a consequence of fragmented responsibilities and inadequate coordination across the institutions responsible for prevention and response.

The findings also highlight the importance of distinguishing proximate causes from underlying causes. A tanker explosion, electrical fire, drowning, chemical poisoning or generator-related death may have an immediately visible trigger, but recurrence is more likely when the underlying conditions remain unchanged. These conditions may include defective infrastructure, inadequate maintenance, unsafe behaviour, weak supervision, economic pressures, inadequate enforcement and ineffective corrective-action systems. In the case of petroleum infrastructure, stakeholder collaboration has been specifically identified as necessary because no single organization can adequately manage the multiple dimensions of recurring pipeline disasters [52], [53]. Thus, simply identifying an individual as responsible after an incident may produce accountability without necessarily producing prevention.

An important dimension of the present study is the relationship between safety behaviour and fatalistic perceptions. Recent empirical evidence from Nigerian healthcare workers demonstrates that fatalistic beliefs are negatively associated with safety behaviour and that individuals with stronger fatalistic orientations tend to perceive preventive actions as less effective [54]. This finding provides an important empirical basis for examining the “witchcraft” metaphor used in this article. When recurring incidents are perceived as predetermined, spiritually caused or beyond human control, individuals may be less motivated to identify physical hazards, report unsafe conditions or adopt preventive measures. The issue is therefore not whether cultural or religious beliefs should be dismissed, but whether particular interpretations inadvertently weaken perceptions of preventability and responsibility for risk reduction [54].

The results further suggest that public safety communication requires a fundamental shift from describing incidents as tragedies to explaining their causal mechanisms. After a major incident, public attention frequently concentrates on casualties and immediate relief, while systematic communication of the causal chain and lessons learned receives comparatively less attention. A more effective approach would explain, for example, how an overturned tanker produces a flammable vapour cloud, how an ignition source can initiate a flash fire, or how generator exhaust can produce dangerous carbon monoxide concentrations in enclosed spaces. Such communication can help replace mystery with understanding and fatalism with practical risk awareness.

Another significant implication is that recurrence itself should become a national safety-performance indicator. If a serious incident mechanism has previously been investigated but subsequently occurs again, the relevant institution should be required to demonstrate what corrective measures were implemented and whether their effectiveness was verified. The emphasis should therefore move from merely recording accident numbers to monitoring whether lessons from previous incidents have actually changed the risk profile. This approach is consistent with the stakeholder-management framework proposed for Nigerian pipeline disasters, which emphasizes prevention, mitigation, coordinated responsibilities and action before, during and after disasters [52].

The findings also point to the need for stronger community participation. Communities are frequently both victims of safety incidents and participants in the behaviours that can increase their severity. The practice of approaching overturned tankers to collect spilled petroleum products provides a particularly important illustration: economic pressures and risk perception can interact to produce behaviour that transforms an initial transportation accident into a mass-casualty disaster. Consequently, safety interventions must combine enforcement with realistic alternatives, sustained community education and engagement through trusted local institutions.

Overall, the evidence supports a transition from a predominantly reactive safety model to a national safety-learning and prevention system. Such a system should integrate incident and near-miss reporting, root-cause investigation, engineering controls, regulatory coordination, community participation, public safety education and independent verification of corrective actions. Most importantly, every major incident should answer not only “What happened?” and “Who was involved?”, but also “Has this happened before?”, “What was learned?”, and “What has changed to prevent recurrence?” The “witchcraft” of recurring safety incidents can ultimately be challenged when Nigeria consistently converts experience into knowledge, knowledge into preventive action, and preventive action into demonstrable reduction in recurrence.

CONCLUSION

The recurrence of safety incidents in Nigeria represents a significant public safety challenge that cannot be adequately explained by isolated human errors, unfortunate circumstances, or supernatural interpretations. The evidence examined in this article demonstrates that petrol tanker explosions, pipeline incidents, generator-related carbon monoxide poisoning, electrical fires and electrocutions, gas-related incidents, drowning, chemical ingestion, soakaway pit fatalities, slips and falls, and other preventable events are manifestations of recurring hazards interacting with weaknesses in infrastructure, human behaviour, regulation, enforcement, emergency preparedness, and institutional learning. The persistence of substantially similar incidents over many years indicates that Nigeria's principal challenge is not a lack of awareness of individual hazards, but an inadequate capacity to learn systematically from experience and translate lessons into sustained preventive action.

The concept of the “witchcraft of recurring safety incidents” therefore provides a useful metaphor for the apparent mystery surrounding incidents whose causal mechanisms are already knowable and preventable. While cultural, religious and fatalistic interpretations may influence how some communities understand accidents and misfortunes, they should not displace evidence-based investigation of physical, behavioural, organizational and environmental causes. The appropriate response is neither to ridicule such beliefs nor to accept fatalism as an explanation for preventable harm, but to strengthen safety literacy and demonstrate the causal pathways through which hazards produce incidents.

Nigeria requires a fundamental transition from a reactive incident-response culture to a proactive national safety-learning culture. This should involve integrated incident and near-miss reporting, systematic root-cause investigation, stronger engineering controls, effective regulatory coordination, community participation, continuous public safety education, transparent communication of lessons learned, and independent verification that corrective actions have actually reduced risk. Recurrence should itself become a critical safety-performance indicator. Ultimately, Nigeria can break the cycle of recurring incidents when every major event is treated not merely as a tragedy to be managed, but as evidence from which the system must learn and improve. The true measure of safety maturity is therefore not simply how effectively the nation responds to the next disaster, but whether it has learned sufficiently from the last one to prevent the next occurrence.

RECOMMENDATIONS TO ADDRESS RECURRING SAFETY INCIDENTS

The persistence of recurring safety incidents in Nigeria demonstrates the need to move from a predominantly reactive emergency-response model towards a proactive, prevention-oriented national safety system. The central objective should be to ensure that known hazards are systematically identified, investigated, controlled, monitored and used as sources of organisational and public learning. Based on the findings of this study, the following consolidated recommendations are proposed.

1. Establish a National Public Safety Incident and Learning System

Nigeria should establish an integrated National Public Safety Incident, Near-Miss and Learning System that brings together relevant data from agencies and institutions responsible for road safety, petroleum regulation, emergency management, fire services, electricity, health, environmental protection, policing and local government. The system should use standardised incident classifications and capture information on incident type, location, immediate and underlying causes, contributing factors, fatalities, injuries, property and environmental losses, emergency response and corrective actions.

The system should distinguish between incidents, near misses, unsafe conditions and recurring incident mechanisms. This would enable authorities to identify patterns such as repeated tanker overturns, generator-related carbon monoxide poisoning, electrical fires, drowning in open drains or water bodies, soakaway-pit incidents and chemical exposures. Periodic national safety-learning reports should communicate recurring hazards, lessons learned and recommended preventive measures.

2. Institutionalise Learning from Incidents and the Prevention of Recurrence

Every major public safety incident should trigger a structured investigation that goes beyond identifying the immediate cause. Investigations should examine human factors, equipment and infrastructure failures, organisational practices, regulatory weaknesses, environmental conditions, socioeconomic influences and emergency-response performance. They should also explicitly determine whether similar incidents have occurred previously and, if so, why earlier lessons failed to prevent recurrence.

A National Corrective-Action Register should assign each action to a responsible organisation, establish a completion deadline and require evidence of implementation and effectiveness. Corrective actions should not be considered closed merely because an organisation reports that they have been completed; their effectiveness should be independently verified where the risk is significant.

Where substantially similar incidents occur repeatedly, the responsible authority should issue a Recurring Incident Safety Alert describing the incident mechanism, underlying causes, previous occurrences and required

preventive controls. The principle should be: once is an incident, twice is a warning, and repeated occurrence is a systems failure.

3. Prioritise Engineering and Risk-Based Prevention

Safety interventions should follow the hierarchy of controls, with greater emphasis on engineering and design solutions than on warnings or dependence on individual vigilance. Engineering controls should include appropriate rollover and emergency-shutoff protection for petroleum tankers; improved road geometry, barriers, lighting and emergency facilities on high-risk transportation corridors; electrical protection through appropriate earthing, bonding and overcurrent protection; leak detection and automatic shut-off arrangements for gas systems; safe generator placement and exhaust management; and the covering and maintenance of open drains and soakaway pits.

High-voltage installations should have adequate clearances, barriers and warning systems, while hazardous chemicals should be stored in properly labelled and secure containers inaccessible to children and unauthorised persons. These measures should be supported by risk-based inspection, maintenance and certification programmes. The fundamental principle should be to design hazards out of the environment wherever reasonably practicable rather than relying exclusively on people to behave correctly.

4. Strengthen Petroleum Transportation and Spill-Related Safety

The recurring petroleum tanker-explosion problem requires a dedicated Petroleum Product Road Transportation Safety Programme rather than treating each event solely as a road traffic accident. The programme should provide for independent periodic tanker inspection and certification, electronic speed and driver-behaviour monitoring, hazardous-material and defensive-driving training, appropriate loading limits, preventive maintenance, fatigue management and designated high-risk tanker routes.

Emergency preparedness along major petroleum transportation corridors should also be strengthened through strategically located response resources, rapid spill containment and coordinated intervention by relevant agencies. Deliberate violations of safety requirements should attract appropriate sanctions.

Particular attention should be given to the practice of collecting spilled petroleum products following tanker crashes. Public communication should explain the causal mechanism—fuel release, vapour formation and ignition—rather than merely describing fuel scooping as dangerous. Communities in high-risk areas should receive practical emergency guidance on maintaining safe distances, reporting incidents and avoiding ignition sources.

5. Strengthen Prevention of Electrical, Generator and Domestic Safety Incidents

Generator-related carbon monoxide poisoning and electrical incidents should be addressed as continuing public safety priorities. Public-health and safety campaigns should emphasise that carbon monoxide is colourless and odourless and that generators must never be operated inside rooms, enclosed corridors, garages, shops, basements or other inadequately ventilated spaces. CO-safety information should be incorporated into building requirements, generator sales and installation guidance, public-health programmes, school safety education and emergency medical training.

Electrical safety should similarly be strengthened through improved certification and inspection of installations, effective earthing and bonding, overcurrent protection, quality control of electrical products, regulation and competency requirements for electrical artisans, and enforcement against unsafe or illegal connections. Public education should address common hazards including overloaded sockets, damaged extension cables, unattended electrical appliances and the use of electrical equipment near water.

6. Implement Community-Level Hazard Mapping and Continuous Safety Education

Local governments, working with communities and relevant technical agencies, should undertake community public safety hazard mapping. Maps should identify open drainage channels, uncovered soakaway pits, flood-

prone areas, high-voltage corridors, dangerous road intersections, fuel and LPG facilities, petroleum tanker routes, abandoned structures, unprotected construction sites, chemical-storage locations and hazardous water bodies.

The resulting information should inform local development planning, inspection priorities and emergency-response arrangements. Hazard mapping should be complemented by continuous public safety education covering fire prevention, road safety, electrical safety, gas and LPG safety, generator and carbon monoxide safety, drowning prevention, chemical safety, first aid, emergency preparedness, evacuation and incident reporting.

Safety education should begin in schools and continue through universities, workplaces and communities. It should be practical and action-oriented, teaching citizens not only how to recognise hazards but also how to respond appropriately during emergencies.

7. Engage Religious, Traditional and Community Institutions in Safety Communication

Religious leaders, traditional rulers, community leaders and other trusted social institutions should be deliberately incorporated into national safety education. Their involvement can improve the acceptance and reach of safety messages, particularly in communities where explanations of accidents and misfortune may include cultural, religious or supernatural interpretations.

Safety communication should not seek to ridicule or confront deeply held beliefs. Instead, it should establish that personal faith or cultural beliefs are not incompatible with hazard identification and preventive action. The communication strategy should demonstrate that apparently mysterious events can often be understood by examining their physical and social causal chains.

For example:

Tanker overturns → fuel spills → vapour forms → ignition source occurs → fire/explosion → people gather around the spill → casualties.

Similarly:

Generator operated indoors → carbon monoxide accumulates → exposure occurs → unconsciousness → death.

And:

Overloaded socket → excessive current → overheating → insulation failure → electrical fire → injury or death.

Presenting such causal chains can help shift public attention from vague explanations of misfortune towards practical hazard recognition and prevention. The phrase “witchcraft of recurring safety incidents” may therefore be retained as a communication metaphor, provided that the manuscript clearly presents it as a metaphor for poorly understood and repeatedly unaddressed causal mechanisms rather than as an assertion of supernatural causation.

8. Strengthen Regulatory Coordination, Accountability and Safety Performance Measurement

Nigeria's safety institutions should operate through stronger inter-agency coordination because many major incidents cross regulatory and institutional boundaries. A tanker explosion, for example, may simultaneously involve petroleum regulation, road safety, fire services, emergency management, policing, healthcare, environmental protection and local government.

A national coordinating mechanism should therefore promote shared incident classifications and databases, clearly defined institutional responsibilities, joint investigations where appropriate, coordinated emergency exercises, interoperable communication protocols and common safety-performance indicators.

Performance measurement should extend beyond accident counts to include fatality and serious-injury rates, near-miss reporting, recurrence of previously investigated incident types, inspection completion, safety-training coverage, emergency-response time, compliance with safety requirements, timely completion of corrective actions and independent verification of their effectiveness. Repeat occurrence of an already investigated incident mechanism should be treated as a critical safety-performance indicator and should trigger management and regulatory review.

Accountability should also be proportionate and just. Investigations should distinguish between genuine human error, system-induced error, reckless behaviour and deliberate or grossly negligent violations. A punitive-only approach may discourage reporting and conceal near misses; therefore, the system should protect good-faith reporting and learning while imposing appropriate consequences for wilful or grossly negligent safety violations.

9. Adopt a National Zero-Repeat Principle for Major Safety Incidents

Nigeria should adopt a Zero-Repeat Safety Incident Principle for major and preventable incident mechanisms. This should not imply the unrealistic expectation that every accident can immediately be eliminated. Rather, once a serious incident has occurred and its causal mechanisms have been established, the same mechanism should not be permitted to recur without demonstrable corrective action.

Every major investigation should therefore answer five questions: What happened? Why did it happen? Has this happened before? What was learned from the previous occurrence? What will be demonstrably different this time? The fifth question is particularly important. If the answer is "nothing," then the country has not learned from the incident.

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