

# Academic College of Emergency Experts in India's INDO-US Joint Working Group (JWG) White Paper on the Integrated Emergency Communication Response Service in India: Much more than just a number!

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## ABSTRACT

The proposal for an integrated national emergency number for India is garnering a lot of enthusiasm and stimulating debate. This ambitious project has a two-part paradigm shift to set in; the first being the integration into a single number and the infrastructure required for setting up and operating this number such that a call can be received and identified. The second is the submerged part of the iceberg: That of the ability to respond to a call and deliver the appropriate emergency service. The first part is more technical and has potential precedents like the 911 phone hotline, for example, to emulate. The main premise of this paper is that the second part is a rather subjective exercise largely determined by the realities of existing public infrastructure in a specific geographical area with respect to emergency services management, especially medical care. Consequently, we highlight the key areas of both precall preparedness and postcall execution that need to be reviewed prior to going live with an integrated number on a national scale.

**Key Words:** Integrated emergency communication response service, integrated national emergency number for India, national emergency number

## INTRODUCTION

An effective, single, national, universal emergency number is one of the most fundamental public services that can be rendered by the government to its citizens.

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Worldwide, most developed nations have already evolved to operating such national emergency numbers managed by the state, like the 112 in the countries included in the European Union<sup>[1]</sup> and 911 in the United States of America<sup>[2]</sup>

Given that most emergencies may necessitate multiple types of safety services, it makes logistic sense to amalgamate the fire, police, and ambulance services under a common outreach mode.

The crux here remains that this is more likely to succeed when provided by the state rather than *ad hoc* private players.

So the first step in the right direction taken by the Indian government is to undertake by itself at a national level. Although this needs significant political will, legislation, network grids, and infrastructure for setting up and running the service smoothly;

there have been smaller experiments in various states like the 108 service, which can be used to model a larger scale execution of the same.

Transitional economies like India often find themselves in a serious jeopardy when it comes to dealing with emergencies of any scale making it challenging for the government to respond even when it genuinely intends to. For one, the incidence of serious adverse events especially man-made is likely to be higher than stable economies owing to lack of quality infrastructure, preventive surveillance, and public awareness. This in itself builds a strong case for having a standardized and widely publicized integrated national emergency number that citizens could access in need. Thankfully, over the last few months, the government has started working in a big way toward establishing this national emergency number.

There is deliberation regarding what that number should be; should be a new code, or should some existing emergency number be rechristened; how would technical outreach for the number be achieved and how this number would be funded, among others. The Telecom Regulatory Authority of India (TRAI) has just released a landmark Consultation Paper<sup>[3]</sup> in this regard to detail the technical, commercial, and regulatory issues in implementing such an “Integrated Emergency Communication and Response System” number in India.

Along with reviewing the various challenges raised by the TRAI for making such a number operational; this paper aims to unfold the next half of this herculean exercise – that of “answering” a national emergency number and actually “providing” end-to-end integrated emergency services.

## **BASIC FRAMEWORK FOR OPERATING AN INTEGRATED NATIONAL EMERGENCY TELECOM-BASED COMMUNICATION SERVICE**

We divide the working into two parts:

The first part addresses the precall infrastructure involved in the accessibility of the number; the second part addresses the postcall infrastructure involved in “answering” the call and actually “dispatching” the right emergency services.

Whenever a “helpline” is setup, it is akin to a promise of assistance pledged to the caller in need.

This is why meticulous planning of the second half-how exactly to help-deserves as much attention if not more than merely having a number people can call. Every time a call is made for help and answered “inadequately” it can backfire exponentially against the service. Such unintended consequences can cost more than the credit it may earn for every call answered adequately.

With this understanding, we proceed to review the questions raised by TRAI in the context of both precall and postcall preparedness in the Indian context.

## **REVIEW OF THE CONSULTATION PAPER**

The TRAI has beautifully detailed the myriad of technical and regulatory parameters that would have a bearing on establishing the integrated emergency service number in India. The TRAI has reviewed the working of national emergency numbers around the world. Using that perspective, it has outlined key areas that were either operational issues for those countries or would pose as new challenges while launching the service in India. The paper was put up on a public platform to invite suggestions, advice, and alternatives from experts and citizens alike to help the government plan the execution of the number.

We start with attempting to answer some of the salient concerns outlined in the Consultation paper.

## **CALLER IDENTIFICATION**

### **Ownership of the caller database and dealing with hoax calls and phones without SIM cards**

Telephone users in India include two distinct groups of fixed and mobile phone users. Fixed telephony preceded the mobile services in major metropolitan cities which too are now fast converting to mobile networks. The cellular market in India has grown phenomenally in the last decade as a consequence of a number of deregulatory steps facilitating the development of the telecom sector. The penetration of these is still variable across various parts of the country, but what is of importance is the fact that a large rural populace may make a direct switch to mobile telephony as their first phone, given the immensely competitive and low-cost cellular services market in India.<sup>[4]</sup> The newly flagged “Rural telephony project” funded under the Universal Service Obligation Fund can bring in an unprecedented surge in the volume of subscribers especially from rural areas.

This could bring in some new challenges and opportunities.

As stated in the TRAI report, about 95% of the mobile users in the country are prepaid customers. These numbers will swell further as rural cellular telephony picks pace; prepaid services are easier to get started with, offer a lot of pricing flexibility and have fewer formalities for registration-especially cross-confirmation of the subscriber’s location.

So prior to the question of assembling the database of multiple cellular network providers, is the need to define the database integrity in the first place.

1. The first step to this is the presence of a single reliable database of national identification of citizens which is in underway with the Unique ID (UID) project in the country

2. The same team that is presently handling the UID project could be the best match to assemble the database of communication devices, given their familiarity with the execution of such an intensive exercise
3. The database of all communication device owners would then be interfaced with this single database so atleast the *identity* of the owner is confirmed and unique
4. The next step would then be deciding the ownership of this database, which as per the aforesaid facts, could best remain with the Unique Identification Authority of India under the Central Government, so it can abide by the same rules and regulations for preserving the confidentiality of this data.

### Dealing with hoax calls

In the recent past, there has been an increasing influx of cheaper unbranded cell phones in the market; the International Mobile Equipment Identity (IMEI) numbers of which are fake and hence cannot be traced by mobile towers or security agencies. The market for these has grown four-fold in 3 years from 5.5 million in 2007-08 according to the Indian cellular association.<sup>[5]</sup>

As for hoax calls, in India, it would need to start with a serious monitoring of unbranded phones. This has already been started by the government but would need greater cooperation from cellular companies by restricting services for any phone that does not carry an original IMEI number.

This would be followed by the caller line identification using the central database such that atleast the identity of the caller is established; and then followed by a real-time caller line identification to confirm the location of the call using either cell triangulation or global positioning system depending upon the extent of cellular network penetration in that given area.

Loss of phones can create issues for the caller identity when using real-time identification. A provision will have to be made to ensure immediate updating of change of caller information when a phone is reported to be stolen/lost; so reporting to cellular companies for stolen/lost phones could be made mandatory. This way, the risks associated with an illegitimate change in ownership of the particular phone can be brought under control, thus protecting the integrity of the caller identity database.

### Opportunities arising from an expanding mobile user base

With some of the lowest tariff plans in the world, the telecom industry is proving to be a major boost to outreach in large parts of India. This surge in mobile users is also a serious opportunity in the number of people who can be provided access and be tracked on a national network grid. As of today, we are limited by the access to landlines especially beyond urban pockets.

Cell phones combined with the UID can be greatly instrumental in identifying and connecting people to a national helpline that can actually reach them in time of need.

## WHEN TO CALL THE IECRS

### Types of emergency services made available through single emergency number

Any event that necessitates the assistance of the police or the fire brigade or health professionals *per se* would constitute an emergency. Emergencies are typically multidimensional; the idea of an integrated emergency is to be able to address each dimension.

This needs a planned approach to predict the combination of services required to handle various types of situations.

From an Indian perspective, this would need to be broadened to specifically plan for incidents like:

### Major accidents/events

- Building and bridge collapses (either illegal or under construction)
- Natural calamities like landslides in mountainous terrains and road caving of kuccha roads in semiurban areas; river borne floods, flooding secondary to torrential rain in rural or urban areas, and so on.

### Violence

- Domestic violence and dowry attacks
- Acid attacks
- Sexual violence of any order
- Violence involving infants, children and elderly
- Vandalism with or without injury to civilians
- Riots especially involving communal dissent
- Acts of terrorism.

### Specific medical emergencies

- Poisoning: Individual/mass food poisoning, snake/animal bites
- Obstetric emergencies especially in low-income settings.

The basis of outlining these specific events is that these are complex emergencies, the “response” to which must take into consideration the following crucial aspects:

1. Major accidents/events *per se* can occur anywhere, even in developed countries. In India, however, the underlying circumstances of population density; poor connectivity by road or communication lines; poor-quality construction with imminent risk of collapse, and so on. This can make responding to emergencies a challenge, unless geographical terrains are well-mapped, transport modes established to atleast access a given place especially in times of mass casualties and most importantly the location of first referral units, where victims need to be taken from the accident site. We revisit this at length in the paper
2. All emergencies involving women and children have serious legal and social implications, and hence the “right” to freely call the emergency number (even anonymously) will have to be addressed; also relevant laws involving women and

children will need to espouse the composition and powers of the “response team” for violence involving women, children and elderly (e.g., lady police, doctors, etc) such that they are truly authorized to take charge of the situation and their own safety is taken care of

3. Acts of vandalism often involve major political parties and this can largely skew how the situation is reported or handled even when innocent civilians are injured or property is damaged; hence, the need to empower the emergency response team with legal statute to enforce ceasefire and prioritize safety of civilians and public property
4. Riots with communal dissent can be much worse than vandalism and in this case, instances of even ambulances being torched are not uncommon; there would be a need to define a hierarchy of emergency response teams (discussed ahead) in a way to synchronize them with the armed forces network when required; also the safety of the emergency response team entering a riot-hit zone would need to be prioritized with adequate protective gear. The same would apply to terrorist attacks
5. Poisoning (suicidal or homicidal) using commonly available toxic agents like organophosphorus compounds or complex plant compounds is largely prevalent in semiurban and rural parts of the country. The process of immediate toxin identification, sample collection, and hence, the choice of specific antidotes would need standardization and incorporation in the emergency response plan of such victims. Similarly, poor sanitation measures in food handling and adulteration practices have led to mass victims of poisoning in the country. These types of incidents would also involve urgent reporting to the Food and Drug Authority for damage control depending upon the number of people likely to be exposed to the ingestible item in question. Snake and animal bites would require a similar standardization for species identification (and sample collection) wherever possible at the site of the incident till the victim is rushed to the nearest first referral unit
6. Obstetric emergencies are typically prevalent in low-income settings given the lack of adequate awareness, antenatal care, and social practices. The transport of the pregnant patient whether or not apparently complicated has significant impact on the maternal mortality rates.<sup>16]</sup> The response team to such an obstetric emergency would need to incorporate medical equipment to not just enable conducting a delivery on-site but also facilitate the transport of the mother and her fragile neonate to the nearest obstetric and child care unit in case of any complication.

## RESPONDING TO THE EMERGENCY TELEPHONE CALL

The first step could involve undertaking an extensive simulation-based research exercise to first identify as many possible situations in which an emergency call is received including the ones listed before and enlist the stakeholders and infrastructure required in each case. It can be deduced

from the working of the integrated emergency communication response service (IECRS) in other countries that the public safety answering point (PSAP) operators are already well setup to serve as connecting nodes, directing the right service to the right situation.

The performance of the PSAP and the subsequent value of the emergency service would thus depend on the speed and accuracy of making these connections. This would be possible to achieve only if there are predefined algorithms for as many situations as possible, leaving the PSAP operators with as few unexpected situations to deal with as possible.

The second step would need to divide the country into zones for distributing PSAP units with their areas of jurisdiction and setup the central national headquarters to overview functioning of this entire network. Keeping in mind the linguistic diversity in India, it would make working sense to divide zones based on language familiarity, keeping English as the common base for all units. The physical location of such PSAPs would have to be in areas with uninterrupted power and high-speed internet connectivity.

The third step would involve integrating the existing database of nationwide locations of the police, fire fighters, and healthcare providers (discussed in detail). They could then be matched to create area-wise sets (E-response PFH teams) such that there is little time lost in deciding whom to dispatch in a particular area. The area-wise units would have to be assembled keeping in mind both number of people served and access routes/terrain in that area.

The fourth step would involve staffing of PSAPs and training of the operators using these predefined protocols and on how to access these databases. A point to note here would be that basic familiarity with medical terms would have to be included in this training process.

Here, we pause to review the role of medical services in the emergency response plan and the extent of planning and integration required at healthcare provider levels before this response team can be made ready.

### Assembling emergency response teams and their organizational and operational hierarchy

The simulation exercise for planning the response to acute events would help outline the stakeholders involved in different types of emergencies.<sup>17]</sup> Highways, railway stations, and airports may be equipped with their own helplines and set of professionals who presently attend to them. It would be necessary to combine as many of such existing helplines and professionals as possible, so as to prevent duplication and redundancy when planning for the integrated emergency grid.

Next, emergencies would have to be classified depending on whether they involve the following:

1. Individual emergencies (disease-related)/poisoning/bites
2. Accidents/falls inside homes/workplaces

3. Victims of assault
4. Crimes involving women, children, and elderly
5. Road traffic accidents (graded as per severity)
6. Fire (graded as per severity)
7. Building/structure crash (graded as per size/severity)
8. Bomb blasts or terrorist attacks.

It would be useful to review past records from the police and fire departments to analyze patterns of how emergencies occurred, how they were reported, who attended to them, what was the incident scene like, and what was done as a part of the acute response.

Accordingly, a hierarchy of response teams would have to be setup in a way that the members from all the three services in that team are proportionately experienced and staffed so as to deal with the scale of the emergency at hand.

Emergencies starting from number 5 in the above list are likely to require specialized rescue equipment depending on the extent of damage occurred till the response team can reach the site and start rescue of victims.

Also, emergencies starting number 7 would involve assistance from the armed forces depending upon the number of civilians involved and the impending risk of greater damage to property/life.

### **Medical services are an inherent part of emergency services**

A major lacuna so far has been the underestimation of the extent of medical repercussions in any emergency.

There are barely any emergency events that do not at all involve human injury/suffering. Also, the basis of this being called an emergency is usually the greater impending threat to human life. Ideally, any emergency response must, thus, be planned keeping the medical response team at the center. Of the three arms of emergency services (police, fire, and ambulance), the health services have been the weakest link so far, the reason in part being the dual nature of healthcare services needed in an emergency (on-site/enroute management and actual treatment after transporting to a hospital) and the overall unorganized nature especially of emergency medical services in the country.

The healthcare provider network in the country is extremely fragmented and there is a mix of public and private players in varying organizational capacity ranging from primary health centres/outpatient clinics to tertiary care hospitals.<sup>[8]</sup> So, not all units can provide the same level of care; trauma/burns/cardiac/neurological management is especially restricted to major teaching public hospitals and large private/corporate hospitals.

Emergency care as a specialty *per se* is a very nascent concept in the country. It is only recent that it has been emerging as a clinical

specialty or being included in academic curricula.<sup>[9]</sup>

The process of emergency care can be divided into the following:

1. Prehospital care (physically moving and transporting the patient in an ambulance) and
2. Actual emergency management (once the patient reaches the hospital).

### **TRANSPORTING THE EMERGENCY PATIENT**

As of now, India is not equipped with a robust Ambulance Act, so ambulance services are unregulated and nonstandardized. Infact, it is this very service area that a couple of private players have tried to establish business models on: 108, 1298, CATS, EMRI, Topline to name a few as paid ambulance service providers equipped with medical professionals wherever required. Apart from typical business woes of staffing and generating enough calls, all of these private ambulances struggle with a common burning issue of parking the vehicle when on standby especially at night. Since the ambulance holds expensive medical equipment, security and charging of these portable machines is a serious concern. The only way out is to enter into deals with hospitals which use these private providers as a substitute to maintaining their own ambulances but call priority and hence call volumes are still uncertain.

So prior to making the emergency number functional, is the need to define the volume, ownership and standardization of ambulances that would be required to attend to these emergencies in each of the area-wise jurisdiction.

Mandating each hospital to own and maintain a set of ambulances (proportionate to bed strength) could be the first start point. This alone, however, is unlikely to suffice given the underlying inadequacy of number of hospitals for a given population in the first place.

A separate fleet of “transport-only” ambulances owned and operated preferably by the government would be required to attend to the unserved areas beyond a specified radius of any hospital. The model could, however, work on a public-private partnership basis such that parking, vehicle ownership, and maintenance can be undertaken by the government; while staffing, equipment maintenance, consumable replenishment, and protocols for attending calls would have to be managed by the private provider.

Developing emergency medicine as a separate specialty would help here to address staffing in emergency care areas, thus encouraging not only doctors and nurses to train in the same, but also more importantly create a new cadre of paramedics for prehospital care with an identity to the job they would do. This, however, would have to plan for options to upgrade their skills and join mainstream emergency medical care in some way over the long run.

## PAYING FOR SERVICES WHICH FOLLOW THE EMERGENCY CALL

### Financial issues in implementing the integrated emergency communication response service

The funding requirement for the costs involved in implementation of IECRS can be broadly divided into two halves:

1. The first half deals with the precall costs, those involved with technically establishing the emergency number and the caller line identification
2. The second half deals with the setting up of the PSAP and postcall costs; this includes the entire latent cost of setting up the infrastructure to “respond” to calls (including the network grids for transferring the call to the concerned service provider) and “actually providing” the required emergency service.

The first half would be best borne by the government as an initial step toward setting up the number, since it needs to start as an outright public service for it to gain acceptance from citizens in the first place. The private-public partnership model followed in the GVK-EMRI 108 service has been fairly successful so far and can be taken up as a precedent and worked upon for scope of nationwide application.

### Funding of ambulance-based emergency transport services

Funding of ambulance services is undoubtedly a topic of debate. The individual private ambulance providers obviously charge a fee; the policy varies across private hospital-owned ambulances and only public hospital ambulances are free of charge.

The current GVK-EMRI service for example operates as a public-private partnership where the governments of the states in which the service operates support the venture.<sup>[10,11]</sup>

This can be quite an influential factor in case of which ambulance to call for mass casualties and major road accidents where the patient is either alone or all victims are seriously injured.

The ambulance act would also need to address this, in a way that nominal charges could be added by private hospitals in the patient’s bill at the end of treatment which is supposedly borne by the patient (discussed ahead), whereas the government provided transport-only ambulances can be free of charge.

## EMERGENCY MEDICAL CARE IN HOSPITALS

### Managing the patient after reaching the hospital

We must note here, that even today, in the absence of a dedicated emergency number, a significant volume of emergencies are still brought to a hospital using whatever mode of transport is available.<sup>[12]</sup> Whether these can make it within the golden hour of emergency remains questionable, but what is more important is: What are the outcomes for those victims managed to be brought in within the golden hour.

As a first step toward laying the foundation for quality emergency care in the country, would start with evaluating the existing emergency departments in hospitals across the country for emergency, and disaster preparedness to measure what existing capacity we have at hand.<sup>[13]</sup> The next step would involve outlining existing levels of emergency care capacity based on the infrastructure of the department and the hospital at large to classify them into the following:

1. Primary emergency care: Uncomplicated injuries, normal deliveries, snake/animal bites
2. Secondary emergency care: Nonvascular and orthopedic trauma, complicated deliveries and Neonatal Intensive Care Unit (NICU), poisoning cases, and thrombolytic treatment for cardiac/stroke emergencies, uncomplicated burns
3. Tertiary care: All levels of trauma, neurological/cardiac emergencies, complicated burns.

These are the units that can proceed to establishing protocols for emergency management for each level and subsequent training of emergency medicine professionals.

The second step would involve mapping these existing centers using a combination of geographic information system (GIS) and population density in that area in terms of triads of primary, secondary, and tertiary E-care units present in each zone of jurisdiction. This would bring out deficiencies in infrastructure in an orderly pattern, so we know exactly what level of care is missing for a given zone/subzone.

The third step would then proceed to setting up new/upgrading infrastructure wherever it is deficient. It must be noted here that emergency medicine is a multidisciplinary specialty and can operate only in conjunction with a broader hospital infrastructure backing it for transferring the patient to a definitive care area. So, it can be quite irrational to simply setup emergency care units (even along highways, etc) because they will be near impossible to staff and function in the long run without other specialty units to support them. A better option would be to create hub-and-spoke models connecting multiple primary/secondary E-care pick-up units to major tertiary hospitals in that zone.

This raises the need for streamlining connectivity between hospitals. Most hospitals tend to function in isolation without regular interaction with neighbouring centers. Information technology and the use of internet in hospitals are beginning to pick up and this could prove to be a driver for pushing even interhospital connectivity. Real-time information about level of care provided, bed strength and occupancy, availability of niche specialties/doctors/rare investigations, assistance in case of surge capacity, and so on is things that can immensely facilitate directing and managing patients amongst hospitals within the same/different zones during emergencies.

This connectivity can be extended to include the police and fire-fighting department. Considering they would work together

for the integrated response team, it makes sense to keep them in the loop of how the healthcare provider network would operate in their respective zone. Similarly, nearly all nondisease emergencies will have legal repercussions (medicolegal cases) so it would certainly help hospitals to establish a working rapport with the police networks in their zone to reduce the fear and bureaucracy associated with doctors dealing with the legal machinery in the country.

### **Paying for emergency medical care in the hospital**

It may be interesting to note that among the three emergency services, health is the most complex, expensive and frightening to the victim. Loss of property or valuables may be dramatic too, but it is generally not as irreversible. Resurrection of even grievous hurt is beyond human capability and hence preservation of life is paramount.

Of the three services, police and fire services are nearly free especially during emergencies. Medical services, however, unless delivered at public hospitals are charged starting from the point of ambulance transport; the costs incurred throughout are usually significantly high and directly proportional to the severity of the medical event.

Whether the onus of paying for emergency medical care could be entirely shifted to the government, is a very difficult question as the costs incurred can be pretty high and there can be a lot of gray areas in how exactly to define emergencies (from whose point of view) as this can be an incentive to exaggerate severity so as to overuse the emergency department for prompt and free care.

Cost of emergency care becomes a decisive issue especially in major accidents/disease events, because most public hospitals although equipped with almost all prerequisite infrastructure and manpower are bogged down by enormous patient volumes on a routine basis. Despite of that, they still legally serve as the first point of reference for all types of accidents and there is certain scope for capacity building of these departments. Additionally, emergency care in public hospitals can seriously bring down the cost incurred by the patient, reinstating their faith, and confidence in the IECRS over the long run.

### **HEALTH INSURANCE IN INDIA**

Health insurance has effectively reached Indian shores only in the last decade and coverage over the country is only gradually beginning to pick up. Also, the market is a mix of private and public insurance companies, differing across urban and rural areas, with the idea of social health insurance still doing the rounds of debate. What matters even more, is how and whether emergency care is paid for under any insurance (separately considering ambulance fees and actual treatment costs). Whether the government can incorporate this into a social health insurance model is an interesting option and must be reviewed further as the IECRS proceeds towards execution.

## **PERFORMANCE REVIEW OF THE IECRS**

### **Records, audits, and key performance indicators**

Operating a service as herculean as an integrated national emergency number can take a couple of years to evolve to a serious level of efficiency and performance. The margin of error and permitted underperformance in this service, however, are not as wide. Every negative outcome will set back the service by a number of steps. Hence, a quality and performance approach will have to be adopted right from the inception of the service so as to start in the right directions wherever possible.

The first step to quality and performance would be recording each activity starting with the first call attended for the service.

Provisions for maintaining records (preferably electronic) of all calls received, teams dispatched, and outcomes of the call attended will have to be arranged before the number is opened to public use. This will invite concerns of security, confidentiality, and infallible storage and retrieval of these records, as well as for the identity database accessed by PSAP operators which too would have to be addressed before the number is opened.

A performance audit would have to be conducted at regular intervals (more frequently at the start to deal with teething operational issues) by a reliable external committee at zonal and national levels, the composition of which will have to be planned for.

Accordingly, key performance indicators would have to be outlined for the PSAP which would cover not only quantifiable parameters like speed and correctness of the call attended, but also qualitative parameters like completeness of the call, ability to deal with unexpected situations, call-back in case of lost calls, and overall quality of call conversation as judged by feedback from callers.

## **CONCLUSION**

The integrated emergency service number in India is an idea whose time has come.

There is no doubt that this extensive exercise must be undertaken starting now, and it is heartening to see the enthusiasm from the Government, TRAI and the working group on emergency care in India toward reviewing the effort from multiple perspectives.

The critical point remains that the exercise must be reviewed in the entirety of its ramifications and the gravity of the postcall operational issues must be foreseen, measured and planned for prior to embarking on this ambitious national project. India as the next promising superpower is well-endowed with infrastructure, intellect, manpower, and even the funds that would be required to launch this endeavor. The only problem is that these resources are dispersed, partly accounted, and regulated and hence the need for a preparatory integration prior to undertaking this.

This paper was an effort to consolidate as many of the finer nuances that would emerge as a part of this project and possible recommendations to address them proactively rather than reactively. This national number is a great opportunity for the state to pledge its commitment to the citizens of this country.

We look forward to answering the first call.

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