خادم الحرمين الشريفين لأبحاث الحج معهد العلمي الخامس لأبحاث الحج الملتقى (دراسات منطقة الجمرات)

AN ANALYTICAL OVERVIEW OF STAMPEDE AT JAMARAT SITE --- ROOT CAUSES & POSIBBLE SOLUTIONS

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Stoning the Devil-Posts at *Jamarat* (*Rami Jamar*) with pebbles is an obligatory requisite for the completion of rituals of the Pilgrimage (*Hajj*). *Rami Jamar*, being one of the Pillars of *Hajj*, can not be avoided or postponed. During the last *Hajj* season a deadly episode had occurred at the site of *Jamarat* which has drawn the attention of many sincere Muslims to review the root-causes and find out some solution to avoid reoccurrence of such a mishap.

In this paper various causes of the above fatal episode have been critically reviewed and numerous remedial actions have been suggested that might be taken to avoid such scenario in future. The main points discussed in this paper are: the operational plans and efficient management of controlling accidents, chaos and crisis; application of Information Technology in monitoring and mobilizing huge crowds; providing proper guidance and instant information/instructions to the Pilgrims (*Hujjaj*); highlighting the need of promoting awareness and proper guidance, its important and effective role in the disciplined movement of mob in a confined area in a limited time. The social and psychological behavior of human beings trapped amidst heavy crowds, and the engineering-designs of *Jamarat* site have also been reviewed and discussed briefly in this paper.

In the perspective of *Hajj* and *Umrah*, few additional things concerning the usually seen dashing crowd at the site of Black-Stone (*Hajr Aswad*) in the Sacred Mosque (*Haram*) for kissing it have also been suggested.

It is absolutely not claimed that the observations/suggestions made in this paper with regards to the happenings at *Jamarat* site would make any significant and immediate difference until the entire set-up is overhauled. But this humble effort, made in good faith, can most probably assist the concerned

Saudi authorities in saving the precious lives of many innocent people coming to the Holy land for performing *Hajj*; and likewise minimize and/or control overcrowding while kissing *Hajr Aswad*.

2. INTRODUCTION

"Jamarat" is the plural of "Jamarah" which literally means a small piece of stone or the pebble. There are three Jamarat which are related to Hajj rituals. These three Jamarat situated in Mina valley are known as: Al-Jamarat-us-Sughra (the small stoning post), Al-Jamarat-ul-Wusta (the middle stoning post) and the Al-Jamarat-ul-Uqba (the last stoning post). These Jamarat are represented by three stone pillars that are erected in the middle of three respective circular peripheries (Haudh) [1].

The distance between *Al-Jamarat-ul-Uqba* and *Al-Jamarat-ul-Wusta* on ground level is about 247 meters and the distance between *Al-Jamarat-ul-Wusta* and *Al-Jamarat-us-Sughra* is about 200 meters [1].

These Jamarat actually symbolize the three places where the Prophet, Ibrahim, may Allah's peace be upon him, had precisely stoned the Devil (Satan) when he had tried to persuade him. The peripheries around the pillars were introduced after the year 1292 Hijrah in order to reduce overcrowding on site and collecting the pebbles in a confined area. It is worth noting that the periphery of Al-Jamarat-ul-Uqba was initially constructed only from one side in the shape of a semi circle because its other side was adhered to a small hill. When this hill was dynamited in order to widen the road, the semi-circular periphery remained as it was constructed initially [1].

About fifty years back from now the *Jamarat* site was nothing but a small stone pillar of about 5 meters height and a periphery of about 5.5-6 meters in diameter around the pillar. Figure 1 shows the real picture of *Jamarat* site before the existing structure and a group of Pilgrims stoning the Devil-Post [1].

When the number of Pilgrims increased many folds and the then *Jamarat* site became insufficient to accommodate them, an upper story was constructed after the year 1383 *Hijrah*, which also underwent expansions a number of times in the following years [1].

The "Arab News", a leading English daily newspaper published in Saudi Arabia, reports that the first major expansion of the *Jamarat* site was carried out in 1975 when the existing structure of the bridge was constructed [2]. Then nearly every year some renovation and minor developmental works were carried out in order to facilitate accommodating more and more Pilgrims and use the premises with comfort and tranquility.

The existing *Jamarat* Bridge is 600 meters long and 40 meters wide from each direction. It is a two storied structure, one basin or ground or basement level and the other over a bridge. The Entry to the bridge is from eastern side of the area reserved for the tents of Pilgrims. There are three circular peripheries ranging from approximately 12 and 15 meters in diameter in the basement as well as on the bridge of the structure. Two adjacent roads run parallel to this *Jamarat* site, which always remain overcrowded by the movements of heavy and light passenger vehicles, ambulances, fire brigades, patrolling police cars, food and water supplying trucks and the pedestrian Pilgrims.

According to the information available in the Custodian of Two Holy Mosques's Faculty for *Hajj* Researches (CTHMFHR), the minimum lawful time for performing stoning ritual is five and half hours. As per latest statistics the capacity of *Jamarat* Bridge with average density of Pilgrims is 114,000 stoning per hour, which in case of high density of the Pilgrims reaches to 627,000 stoning per hour. Thus, the number of Pilgrims passing over *Jamarat* Bridge to perform stoning ritual reaches to a million and 100, 000 Pilgrims per day. The percentage of Pilgrims stoning on the bridge is 52% to that of the total Pilgrims performing this ritual. Hence, the net mass which passes through *Jamarat* region (i.e., the ground level and over the bridge) for stoning reaches to 1,205,692 Pilgrims.

As per the statistics of the CTHMFHR, if the total number of Pilgrims exceeds 2 million individuals and 20% of them are appointing others as proxy to stone on their behalves, we find that the number of Pilgrims who are capable of stoning in person exceeds the total capacity of *Jamarat* region to accommodate Pilgrims by more than 20% approximately.

A report published by Saudi Arabian Airlines in the year 2003 Gregorian indicates an expected

overall increase of about 26% in the movement of Pilgrims from various national and international airports in the year 1423 *Hijrah* as compared to the year 1422 *Hijrah*. Figure 2 graphically represents this expected overall increase.

This statistical analysis of CTHMFHR and the above report of Saudi Arabian Airlines indicate the magnitude of increase in the crowd level in recent years, and hence confirm an immediate necessity of solving the problem of overcrowding.

At present some project is under way to renovate the existing *Jamarat* Bridge at a cost of SR100 million. This renovation project also includes changing the shape of the basin used to throw pebbles by the Pilgrims from round to oval so that it may accommodate more Pilgrims, addition of new entrances and exits and installation of boards for the guidance of Pilgrims [2].

The details released by official sources about the civil proposals approved for the development of the site in future looks very lucid and attractive and will be discussed and analyzed in detail under subsection 3.2 below.

3. DISCUSSION

3.1 Main Causes of Stamped

After scrutinizing and perusing minutely the sequence of accidents observed on *Jamarat* site in previous years one may deduce that the root causes of stampede may be categorized into six main categories, which may further be classified into a number of sub-groups. The main categories and their sub-groups are discussed here as below:

3.1.1 Lack of Awareness in Pilgrims & Irresponsible Behavior of Mutawwafeen

Forehand information/guidance/training is usually not furnished to the Pilgrims either by their respective *Hajj* Committees or the authorized *Mutawwafeen* (Saudi Sponsors or *Hajj* Guides). The Pilgrims go out of their camps on their own for stoning without any pre-planning or proper guidance or organized training; hence create nuisance in situ.

3.1.2 Irresponsible Behavior of Pilgrims

3.1.2.1 Accumulation of Unauthorized Pilgrims Near Jamarat Site:

Presence of a sizeable number of *Hajj* aspirants, apparently arriving from nearby cities or countries without adopting authorized means to perform *Hajj*, unnecessarily creates overcrowding on the site. Since such Pilgrims are not attached with *Mutawwafeen*, they generally try to camp with their all baggage and belongings at the places of their convenience, such as basement of *Jamarat* Bridge or surrounding open areas or under the shade of nearby bridges or beside the roads near the site. Thus, on one hand they put a lot of pressure on law enforcing staff, and on the other hand create havoc for other law abiding *Hajj* aspirants by blocking roads, jamming traffic mobility, creating improper house keeping, lawlessness, unhygienic and unsafe environment, etc.

3.1.2.2 Mob of Unauthorized/Authorized Pilgrims Rushing for Stoning Just After Zawal:

Since a great mass of unauthorized Pilgrims takes shelter near the site of *Jamarat*, as mentioned above, and tries to perform stoning of *Jamarat* in the very early hours of noon (i.e., just after *Zawal*); hence enhances the chances of accidents to a great extent.

Some authorized Pilgrims also imitate this unsafe practice thereby going to the *Jamarat* site early in the morning and keep themselves waiting there until noon time. As soon as *Zawal* time is over they hurriedly rush into the premises for stoning the Devil-Posts in the very first move of the mob. This situation further aggravates the risk of accidents.

3.1.2.3 Pilgrims Carrying Baggage While Going for Stoning:

Some Pilgrims exhibit another very irresponsible behavior by performing the stoning of *Jamarat* while carrying their luggage. It is observed that a good number of Pilgrims come to the site of *Jamarat* with their bag and baggage in a bid to go to *Makkah Al-Mukarramah* directly from *Jamarat* to perform *Tawaf* (the Circumambulation) of *Al-Ifadhah* (Visit) or *Al-*

Wida (Dearture). Such Pilgrims want to perform stoning in the early hours after Zawal.

Some Pilgrims in quite sizeable numbers directly come from *Muzdalifah* also with their baggage to *Jamarat* and perform the rituals.

Many unauthorized Pilgrims who do not have any proper or safe place to keep their luggage have also been seen to carry it with them while going for stoning.

All these circumstances create a lot of problems and hindrances for other Pilgrims, and sometime also result in tragedies.

3.1.2.4 Pilgrims Entering or Leaving Jamarat Bridge in Reverse Directions:

Due to a heavy crowd of Pilgrims at *Zawal* time near the Entry Point of *Jamarat* Bridge, some Pilgrims have been seen entering from the Exit Point so that they may reach easily and quickly to the Devil-Posts without experiencing any struggle.

Similarly, some Pilgrims who have their camps nearer or towards the Entry Point of *Jamarat* Bridge return in reverse direction, i.e., towards the Entry Point, after stoning just to save them from walking a long way around the structure.

But such movement of Pilgrims in opposite direction obstructs and hampers the smooth flow of the mob.

3.1.3 Irresponsible Behavior of Some Staff on Duty

3.1.3.1 Irresponsible Behavior of Some Mutawwafeen:

In addition to what has been mentioned above under section 3.1.1, most of the *Mutawwfeen* and their subordinates don't pay much attention towards the safety and security of their Pilgrims. They just leave the Pilgrims stray to do anything, any time, anywhere. They should realize their responsibility to plan, organize and manage the timings and activities related to certain rituals for their Pilgrims. On the contrary their treatment with the Pilgrims usually remains very harsh, insulting and ridiculous, and even some times they do not listen to the genuine grievances of the Pilgrims.

3.1.3.2 Irresponsible Behavior of Some Staff on duty:

It has also been observed that some times the staff on duty, no matter to which cadre they belong, take the things very casually. Let it be a police officer or a doctor or a nurse or a fire fighter or a traffic controller; to some of them even the fatal accidents don't melt their hearts and their attitude towards the victim Pilgrims remains completely unchanged, absolutely non-cooperative and non-responsive.

3.1.4 Psychological & Social Impacts

3.1.4.1 Psychological Factors:

It is well known that the psyche of human beings is very much influenced by the tragic memories attached to any sad event and this psychological impact is exclusively exhibited in their behavior. Pilgrims are no exception to this type of behavior. The tragedies that have occurred in recent past at *Jamarat* site, almost at regular intervals, have undoubtedly created a sense of fear and apprehension in the minds of common Pilgrims.

Moreover when a tragedy of any magnitude occurs at any stage during the course of *Hajj* and the crystal clear situation is not brought to limelight, a sense of panic is naturally created

amongst the majority of Pilgrims and many baseless rumors start circulating among them. Overwhelmed by this psyche, the Pilgrims indulge themselves in unnecessary and avoidable haste and disorder to perform the rituals of stoning, thus resulting in many unpleasant situations.

3.1.4.2 Social Factors:

Every year millions of Muslims from every corner of the world assemble in the Holy land to perform *Hajj*. Since the Pilgrims in this big conglomeration have different social backgrounds, they do differ in their customs, civilized traits, levels of tolerance, cultural heritage, team spirit, educational acquaintance, sense of brotherhood, moral values, fraternity, etiquettes, etc.

The lowly educated, intolerant, immoral, etiquette-less and uncivilized Pilgrims are mostly found self-centered and involved in some sort of criminal or immoral activities. Very often it has been observed that many Niger with sound physic and muscular personality run in groups pushing others Pilgrims on either side with their elbows. They don't even care stepping over any elderly Pilgrim or female knocked down due to their strong push. Once few persons are knocked down in huge congregations, like on *Jamarat* site, and other Pilgrims unknowingly step over them due to irresistible push from the back, a scenario of pushing, crushing, dashing and chaos is initiated which gradually propagates in its magnitude and the ultimate aftermath that of is nothing but a great devastation and loss of precious lives.

Similarly, the problems are sometimes initiated by unsocial elements, like the pick-pockets. If they are caught red-handed by their victims, they try to escape unidentified and mingle in the flowing stream of millions of Pilgrims. In order to disappear quickly from the sights of people around them, they sometimes try to push others and run finding their way.

These evil practices may also result in initiating chaos, mishaps, nuisance and stampede on *Jamarat* site.

3.1.5 Design flaws

3.1.5.1 Faulty Entry Point of Jamarat Bridge:

The Entry point(s) to the places of huge gatherings, such as Stadiums, Auditoriums, Theatres, etc., are generally kept much smaller in size and area than the actual place where big events are practically held/performed, whereas in case of *Jamarat*, the situation is just the reverse.

The existing Entry point on *Jamarat* Bridge is unrestricted and far far wider than the actual arena for the activity. This allows a large mob to move in at a time, but the stoning rituals can be performed by only a limited number of Pilgrims assembled around *Jamarat* (say few hundreds) at a given point of time because of following reasons:

The prescribed/preferred size of the pebbles is such that it can not hit the target or reach into the periphery surrounding the Devil-Posts from a larger distance.

The generally observed style of holding the pebbles in hands or pockets or polythene bags is such that a Pilgrim can not achieve the aim of hitting the target beyond a limited distance.

If the above two points are ignored and stoning ritual is performed beyond the limit of operational distance, the pebbles are likely to hit the Pilgrims instead of the Devil-Post(s) or falling into its peripheries.

This design flaw makes unnecessary gathering on *Jamarat* Bridge. In the basement this overcrowding sometimes causes suffocation too.

Similarly, the Entry and Exit points to the *Jamarat* are not clearly earmarked and conspicuous.

3.1.5.2 Single Tiered/Storied Jamarat Bridge:

The existing *Jamarat* site is comprised of a single tiered/storied bridge and a basement which has become totally insufficient to accommodate every year increasing number of Pilgrims as has been described under section 2. But, the Saudi Government in principle has already taken the decision to convert it to multi-tiered/storied structure which will be discussed in detail under section 3.2.2.

3.1.6 Miscellaneous Factors

Chaos Created Due to VVIP Movement:

Whenever some VIPs, diplomats and dignitaries visit *Jamarat* site to perform the ritual, the whole system becomes semi-paralyzed. For security reasons certain enclosures are closed for ordinary Pilgrims. It exerts extra pressure on other un-isolated enclosures, and consequently increases the chances of mishaps.

3.2 Approved Developmental Plans & Gestation Period of Execution

The approved developmental plan of *Jamarat* site consists of a four storied bridge in addition to the ground or the basement level, thus making it a five storied structure. The option of further increasing the number of levels of *Jamarat* Bridge has been kept open. This structure will be equipped with a number of wide passages, tunnels, stairs, and elevators for the handicapped and wheel chair users, etc.

This plan is fully compatible to the international standards of latest architectural designing. Saudi authorities have decided to complete this project in a number of phases. In its first phase two levels of the bridge will be constructed and the consecutive levels will be added later in subsequent phases of the project. After the completion of the first phase three million Pilgrims will be able to perform stoning ritual per day. The capacity of Pilgrims stoning *Jamarat* will further increase to five millions per day after the completion of project's final phase.

As per available information, the construction of new bridge will be completed approximately in two years. In the first year of its construction the ground floor, under ground tunnels and roads on the upper levels will be constructed. These roads are designed to receive the Pilgrims from different directions for stoning ritual and will lead thereafter to specific destinations only.

H.E. Dr. *Habib Mustafa Zainul Abideen*, the Deputy Minister of Municipal & Rural Affairs, has revealed that the ministry has completed studies on the project's architectural designs and it will be implemented in four phases within five years [2].

Crown Prince H.M. *Abdullah Bin Abdul Aziz* while reviewing the plan on 10 November, 2004 has wisely directed the concerned authorities to implement the project soon after the forthcoming *Hajj* season. Four Saudi construction companies are now vying to win the contract of the approved *Jamarat* project [2].

As per official sources, "The Pilgrims will be able to use the facility after the completion of the project's first phase." [2].

Some glimpses of the approved project can be seen in Figure 3, and few of its salient features are described briefly as below:

3.2.1 Changing the Shape of Jamarat Basement

Hajj Minister, H.E. Iyad Madani, has said that the new Jamarat design where the shape of the basement has been changed from round to oval would increase its capacity [2].

3.2.2 The Proposed Expansion of the Jamarat Bridge in Mina

The new bridge will have four levels and the pillars holding the bridge will be built along its edge to allow the uninterrupted movement of Pilgrims. Access to the new bridge will be through two entrances from *Makkah Al-Mukarramah* side. Approaching from *Aziziyah*, Pilgrims will go straight to the second floor of the *Jamarat* overpass. From north *Mina*, Pilgrims will be routed to the third floor and those from south *Mina* will be directed to the fourth floor [2].

3.2.3 Proposed Construction of Underground Tunnels

According to H.E. Dr. *Zainul Abideen*, three underground tunnels will be built to accommodate traffic and separate pedestrian Pilgrims from vehicles as part of the project designed to serve four million Pilgrims annually [2].

The new tunnels to be constructed under *Jamarat* area are *King Faisal* Tunnel, *Sooq Al-Arab* Tunnel and *Jowharah* Street Tunnel and will be used exclusively by vehicles. The ambitious project, which took three years to plan and is designed to raise the throughput from 100,000 to 500,000 Pilgrims an hour, incorporates safety features and state-of-the-art crowd control measures to reduce the possibility of repeats of the stampedes and resultant deaths that have marked some *Hajj* seasons in recent years [2].

3.2.4 Proposed Usage of Electronic Devices

Electronic gates with direction signs will be installed to control the crowds. The ground floor will be an open area with no gates [2].

4. CONCLUSIONS

The statistical analysis of CTHMFHR and the report of Saudi Arabian Airlines indicate that the magnitude of overall increase in the crowd level of Pilgrims in last few years approximates to many folds; hence confirms an immediate necessity of solving the problem of overcrowding in the holy land.

The sequence of sad happenings in past years should be critically studied and scrutinized for the sake of learning lessons and substantiating the main causes that were responsible for those occurrences.

A number of factors which have been discussed under section 3.1 need special attention; and hence should be properly addresses, further investigated and controlled.

All safety arrangements and security measures to be taken in future should be thoroughly and again and again reviewed, ascertained and analyzed thereby exploring all possibilities of eliminating the chances of accidents, sorrowful happenings and misfortunes.

The developments witnessed during the reign of the Kingdom's caring leadership are extra ordinarily commendable, worth appreciating, internationally recognized and unprecedented.

The wise and careful leadership of the "Custodian of Two Holy Mosques", H.M. King Fahed Bin Abdul Aziz Aal-e-Saud, may Allāh be pleased with him and bless him with the Best Reward, is undoubtedly very much concerned about the development of the Two Holy Shrines and well being, safety and comfort of the Pilgrims.

Even though the recent decision for restructuring *Jamarat* site is substantial evidence that exhibits the core of concern of the Kingdom's leadership, it is a joint responsibility of everyone, the entire Government machinery and the supporting staff deputed or assigned in the area, the *Mutawwafeen*, and the Pilgrims.

5. RECOMMENDATIONS

Some remedial and precautionary measures which must be taken by Saudi authorities are recommended hereunder in good faith with a number of options:

5.1 Awareness of Pilgrims

5.1.1 Imparting Hajj Training Programs:

For the familiarization of Pilgrims all *Hajj* Committees through out the universe must be compelled to impart adequate training forehand to their respective *Hajj* aspirants. This Training Program should also include important safety rules, reflux action in case of emergency, first-aid and hygienic practices, etc. Audio visual aids may be utilized for the demonstration purpose.

An advance certificate to this effect should be issued after completion of this Training Program to all *Hajj* aspirants from these Committees. Punitive action should be taken in case of any violation detected in this regard at any stage.

5.1.2 Restricted Hajj Visa Endorsement:

The Royal Saudi Consulates must be directed to endorse *Hajj* visas for only those *Hajj* aspirants who may produce the training certificate mentioned above in section 5.1.1.

5.1.3 Organization of Ritual & Safety Workshops:

It should be made obligatory upon all *Mutawwafeen* also to conduct educational workshops for the awareness of Pilgrims with the right and safe procedures of various rituals, such as *Tawaf*, stoning, etc. The preachers (*Da'eyah*) in different languages, who are currently employed Kingdom wide in various *Dawah* Centers, may be utilized on voluntary basis or deputation or part-time jobs.

Mutawwafeen may also arrange for Close Circuit TV Cables (CCTVC) for educating their Pilgrims and demonstrating them the right procedure of performing any ritual, safety, health care and first aid rules, etc.

5.1.4 Distribution of Reading Material:

Saudi Government itself should distribute reading material/literature about *Hajj* rituals, safety, first aid and general health care, etc., in all major languages to all *Hajj* aspirants at each entry point, viz., at Jeddah seaport/airport or from whichever other points the aspirants enter into the kingdom.

5.1.4 Demonstration of Rituals & Safety Rules at Public Places on CCTVC & Electronic

Display Boards (EDB):

It would also be advantageous to acquaint the Pilgrims in their own languages by demonstrating the right procedures of performing rituals and the rules pertaining to safety and health care. Some prominent public places may be utilized for this purpose. This job can easily be arranged with the coordination of various *Mutawwafeen*.

5.1.5 Ritual Planning & Organization by Mutawwafeen:

Mutawwafeen should pre-plan the time-table and organize the groups of their Pilgrims to perform any ritual. The timings of performing any particular ritual may be decided by mutual consent amongst other *Mutawwafeen* in coordination with the Security staff posted on site. It will potentially induce good management, thus leading all *Hajj* activities in a well organized and the safest fashion.

5.2 Design Modifications

5.2.1 Modification in Jamarat Entry Points:

Since at present, the Entry point to the *Jamarat* site is very wide and unrestricted which allows thousands of Pilgrims to enter whereas only a few hundred Pilgrims can perform stoning at a time, as discussed above under section 3.1.5.1. This causes undue nucleation of crowd in the vicinity of *Jamarat*. In this regard following measures may be taken from the safety point of view:

Barricading with only few entry doors should be made at the very beginning of *Jamarat* Bridge so that only a limited/fixed number of Pilgrims may enter the site at a time. Thus, the concentration of crowd may be diluted to easily controllable extent.

As per official sources, Electronic Gates will be provided in the new Structure of *Jamarat* site, as discussed above under section 3.2.4. But until the proposed Electronic Gates are functional,

limiting the entry of Pilgrims can be ensured by well trained, very efficient, duty conscious, vigilant and smart police personnel.

5.2.2 Modification Around the Peripheries of the Devil-Posts:

An adequate number of circular lanes should be constructed around the peripheries of all the three *Jamarat*. Pilgrims will be allowed to move through these lanes and perform stoning ritual while moving.

The exit of each such lane should lead to the main exit of *Jamarat* so as to avoid returning of some Pilgrims in the reverse direction.

The size of the proposed lanes should be such that a permitted number of Pilgrims may move forward safely at a given point of time, preferably in a single row/queue, and no backward movement is possible. To accomplish this delicate handling and maintaining law and order in the premises, the security staff on duty should again be very efficient, smart, well trained, courteous, polite, firm, tolerant and proficient in speaking and understanding a couple of main languages. Otherwise, this arrangement can boomerang and mishaps of greater magnitude may occur.

5.2.3 Modification in the Shape of Devil-Post Peripheries:

As described above under section 3.2.1, Saudi authorities have decided to change the shape of the existing peripheries around Devil-Posts from round to oval. Though the details of new architectural designs are not known to the authors, but it is felt that the proposed change in shape is a wise decision and will certainly increase the accommodating capacity of the area, provided that the oval design is kept longitudinal to the main structure. If, on the contrary, the shape is designed latitudinal to the main structure, it may hinder the smooth flow of Pilgrims.

5.3 Other Regulatory Measures

Entry of Pilgrims carrying their baggage with them should be checked at the main Entry Point of *Jamarat* Bridge and performing stoning rituals with baggage must be strictly banned.

Pilgrims camping in the basement of *Jamarat* site or under nearby bridges or beside the roads should be strictly prohibited.

Pilgrims entering from Exit Point of *Jamarat* Bridge should be totally checked, and the Pilgrims returning in the reverse direction, i.e., towards Entry Point, must also be abandoned.

Chaos created due to the movement of VIPs, diplomats and dignitaries can be avoided by fixing a time for them instead of closing some enclosures on the site until multi tiered/storied *Jamarat* is ready for use.

Once multi tiered/storied *Jamarat* is constructed a particular story that of can be reserved for their movement only.

It is further recommended that the roof of the new multistoried structure of *Jamarat* must be converted to a helipad which may be used for the transportation and movement of VIPs, diplomats and dignitaries if and when needed. Unnecessary road congestions and closure of some enclosure for the security of VIPs can be avoided by using helicopters.

For monitoring, directing and controlling the situation on site and ensuring the smooth flow of Pilgrims performing the ritual, sufficient elevated Police Posts or Control Towers are required to be constructed in the midst of lanes, proposed above under section 5.2.2, in such a manner that the security personnel manning these posts can oversee, control and guide the Pilgrims without hampering the smooth flow of the Pilgrims.

There should be a foolproof communication system and permanent contact between the security personnel posted at the Entry Point of *Jamarat* Bridge and those posted at the site where the Pilgrims actually perform the ritual.

Through the arrangement of above stated communication system, the inflow of Pilgrims from the main Entry Point can be controlled, and only that number of entrants may be permitted to enter the lanes which can perform stoning ritual smoothly, safely and peacefully.

Note: There should not be any doubt or misconception that if these regulatory measures are adopted all Pilgrims may not be able to perform stoning in the stipulated period. As a matter of fact, the above proposed measures will facilitate the proceedings in a big and well organized way. Since only few seconds are required for a Pilgrim to perform the stoning ritual, it is strongly believed that all Pilgrims may do this exercise smoothly well within the permitted time.

CCTVC and EDB fixed on all prominent public places would help in demonstrating the health care, Safety, Fire Fighting and First Aid Rules to many ignorant Pilgrims and also acquainting them with the safe and correct procedure of performing any ritual or behaving in case of emergencies. These CCTVC and EDB devices may also be used to pass necessary instructions/ directions/guidance to the Pilgrims in case of any accident or tragedy.

There should be proper arrangement of announcements in all languages near all camps in *Mina, Arafah, Muzdalifah, Jamarat* and other important public places to pass important messages/instructions/directions/guidance to the Pilgrims in case of any accident or tragedy. It will patch up the communication gap and depolarization between Administrative Forces and the Pilgrims.

To counter the panic and rumors from spreading amongst the mass of Pilgrims about any accident or tragedy or unforeseen circumstances, the CCTVC, EDB and announcement facilities may be utilized thereby broadcasting the facts for keeping them informed and updated with the current status of the happenings.

The sense of mistrust built amongst the Pilgrims in such situations can be well eradicated by confidence building and providing them reliable and rational information about every state of affair.

Sealed Complaint, Questionnaires and Suggestion Boxes should be provided by *Hajj* Ministry to all *Mutawwafeen* wherein the Pilgrims may express their grievances and sincerely suggest for the betterment of the services provided by *Mutawwafeen* in particular, and Saudi Government in general.

5.4 Recommendations Regarding Kissing & Touching Hajr Aswad

Although kissing/touching/seeing *Hajr Aswad* is not an integral part of the *Hajj* or *Umrah*, but all Pilgrims visiting the Holy land, particularly *Ka'abah*, on the occasion of *Hajj* or *Umrah* naturally have the desire to touch and kiss the Black-Stone at least once in their lives, as a Precept (*Sunnah*) of the Prophet, *mpbuh*. But many Pilgrims, especially the ladies, just watch the scene of strong, young, enthusiastic and daring Pilgrims dashing, pushing and climbing over each other to reach nearer to the Stone. These Pilgrims get the opportunity of kissing the Stone not only once but several times after risking their lives. Whereas, the majority of weak, old aged, ladies and civilized Pilgrims don't get the opportunity to touch the Stone even once. Hence they return having their utmost desire in their chests unfulfilled.

Following suggestions are hereby presented in this regard too:

Every Pilgrim should be issued a Token/Card for the purpose of kissing *Hajr Aswad* along with other essential documents/tokens issued by the *Mutawwafeen* to the Pilgrims. This token should bear the name and number of every Pilgrim and should be absolutely non-transferable.

At present only one-queue moves for kissing the Black-Stone. There should be a barricaded lane for this single queue. Each aspirant should produce his/her token to the security staff posted at the entry of the lane for kissing the Stone.

At the exit of the lane, the people coming out after kissing the Black-Stone should not be allowed to merge into the main crowd performing *Tawaf*.

Instead they should emerge out from one or more main gates of the *Haram*. For this purpose, an underground subway can be constructed.

If possible, separate timings should be fixed exclusively for ladies to avoid intermingling with males which seems unethical and, in most of the cases, causes disrespect for them who dare to kiss the Stone along with their male counterparts. At present, this segregation of timings for different sexes is practiced in *Haram Al-Nabawi Al-Sharif* for visiting the pious grave of the Prophet, *mpbuh*.

In this way each Pilgrim will get a chance to kiss the Black-Stone.

6. REFERENCES

- [1] A number of websites, such as: http://www.makkawi.com
- [2] A number of Arabic and English Daily Newspapers, such as: "Arab News", Jeddah, dated 15 November 2004.
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