Remembering Nepal Earthquake of 2015 and Updating Post-earthquake Reconstruction

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Dear Editor,
Nepal earthquake of 2015, a massive earthquake that struck near the city of Kathmandu (Gorkha) in central Nepal on April 25, 2015. Nearly 9,000 people were killed, many thousands more were injured, and more than 600,000 structures in Kathmandu and other nearby 31 districts were either damaged or destroyed. The earthquake was felt throughout central and eastern Nepal, much of the Ganges River plain in northern India, and northwestern Bangladesh, as well as in the southern parts of the Plateau of Tibet and western Bhutan.

Reconstruction Works Completed till Now
Retrofitting technology was adopted and experience in this technology is being shared worldwide. Six thousand engineers were trained. Post-earthquake reconstructions were depicted in table 1.

Reconstruction and rebuilding are still going on. The major works have been completed. However, there is some delay in the rebuilding due to second wave of COVID-19 pandemic in the country.

Post-earthquake Scenario of Hospitals at Kathmandu in 2015
Many hospitals in Kathmandu were not able to function as usual. The number of orthopedic and trauma patients was very high and the operating capacity of most hospitals was reduced remarkably due to the damage of the operating facilities. There were hundreds of victims who were just lying on bed and waiting for surgery in all major hospitals across the country.

Many hospitals were not able to operate on patients as much as they should have since most were damaged. Even Bir Hospital where there were so many trauma patients; was not able to undergo surgery since the operating rooms in the old Bir Hospital building were non-functional. The nearby Trauma Center was running only one Operation Room.

TU Teaching Hospital was operational and they were operating on around 20-25 patients a day. Civil Service Hospital and police hospitals were also functional but military hospital was operating on make-shift Operation Rooms.
Among 31 districts hit by the earthquake 14 were very much affected and more than six thousand schools are renovated and rebuilt. More than five thousand toilets were built. Two thousand drinking water projects were completed. Roads and bridges were also rebuilt and more than hundred and thirty integrated housing were constructed. More than seven hundred thousand private houses were constructed using earthquake resistant technology. More than twelve hundred health facilities were rebuilt. Twenty-two storied More than twelve hundred health facilities were rebuilt. Twenty-two storied Dharahara tower at Kathmandu was recently re-erected.

Table 1. Post-earthquake reconstruction.

| 1. | Among 31 districts hit by the earthquake 14 were very much affected and more than six thousand schools are renovated and rebuilt. |
| 2. | More than five thousand toilets were built. Two thousand drinking water projects were completed. |
| 3. | Roads and bridges were also rebuilt and more than hundred and thirty integrated housing were constructed. |
| 4. | More than seven hundred thousand private houses were constructed using earthquake resistant technology. |
| 5. | More than twelve hundred health facilities were rebuilt. |
| 6. | About 60% of 900 damaged heritage sites were reconstructed. |
| 7. | Twenty-two storied Dharahara tower at Kathmandu was recently re-erected. |

**phect-NEPAL Hospitals’ Earthquake Response**

During that disaster, a lot of victims were coming to Kathmandu Model Hospital (KMH)3, being in the center of the city. We were resourceless. Our major operation rooms at KMH had been damaged and became non-functional. In a meeting of many hospitals, we have expressed our readiness that Kirtipur Hospital could easily operate on more injured patients from other hospitals if the injured needed to wait for too long.

Kirtipur Hospital then was a new hospital run by Public Health Concern Trust Nepal (phect-NEPAL) with adequate space but had few equipment and supplies and it was not geared to do a large number of operations. We did not even have a big enough autoclave, washing machine/dryer, sterilization department, laundry, water treatment scheme for large number of surgeries. Kirtipur Hospital had two operating rooms; it was already functional and we planned to equip two more operating rooms with additional resources and fund. In a few days’ time, we had 30 patients (ortho, trauma and plastic) there waiting for surgery. We had started to operate on them from day one and were able to receive more patients from other centers in Kathmandu/ periphery for surgeries soon. We had already mobilized doctors and nurses and other support personnel from Kathmandu Model Hospital which is also run by the Public Health Concern Trust - Nepal (phect-NEPAL). We also prepared a temporary helipad there for airlifted victims.

To be able to do trauma cases at Kirtipur Hospital, our space was adequate but our support system was not. Even our autoclave for sterilization, washing machine and dryer were not big enough. Our water purifying system, solar system and waste disposal system had to be upgraded. We also needed to buy surgical supplies, e.g., betadine solution, dressing materials (bandages, cotton, gauges, splints), antibiotics, gloves, needles, syringes, pain medications, anesthetic medicines, etc., as soon as possible. The supplies were used up soon and were not be available here in Kathmandu and we had to bring them from nearby towns not affected by earthquakes or from India and third countries. Several medical and surgical relief aids were received in the meantime.

We also needed some volunteer general orthopaedic and plastic surgeons and anesthesiologists (mostly from abroad) at phect-NEPAL to serve earthquake victims. We also coordinated with government of Nepal, Nepal Medical Council and several other organizations. In the meantime, we repaired Kathmandu Model Hospital4 also and Kirtipur Hospital was fully functional catering to hundreds of victims free of cost.

To conclude, many were very kind in helping our injured brothers and sisters at this difficult time; and several nations and organizations also helped substantially in post-earthquake reconstruction. We were touched and overwhelmed by the concern and support from our friends and well-wishers; our fellow victims needed help; everyone’s help was much appreciated. Furthermore, healthcare workers with some trainings alleviate their burden of work in managing public health challenges during the recovery phase post-earthquake.5

**REFERENCES**