cesses the National ID cards were prepared and distributed to all citizens by 30th October 2008. Throughout this process the citizens of Bangladesh as well as the media proactively helped the Army in completing this widely recognised task.

How challenging was the task?

The task was mammoth, the timeframe was tight and the challenges were many. Some of the challenges were:

The first hurdle we encountered was the selection and customisation of appropriate software. When the news became public that Bangladesh Army was going to enrol and issue ID cards to approximately 90 million people, both local and international software and hardware companies flooded in. Their whole intention was to grab this lucrative contract for business purposes ignoring our national requirements. They projected that a single international standard ID card would cost around 3 to 4 US dollars (amounting to a total of 270 to 360 million US dollars for 90 million voters). This cost projection was for ID cards alone, excluding the costs for voter list with photographs. Their predicted timeframe for the project outdid our expected time limit of 12 to 18 months. Moreover they would not handover the exclusive rights of the software. So we individually searched for and found a few software SDK sources and linked them with several willing local development partners. They took on the challenge and developed enrolment, server and matching software integrating multiple biometric features. Thus the entire technology gamut became solely a Bangladeshi affair.



The second challenge was the selection and procurement of appropriate and cost effective hardware. The huge amount of hardware required (11,000 laptops with webcams and fingerprint scanners, 600 desktops, 550 laser printers, 3000 generators to name a few) drew tough competition from various firms. These firms also tried to push low quality items taking legal advantage of PPR 2003. After much delay UNDP's direct procurement of hardware saved the day. At one point we were stuck with digital signature capture devices. After much experiment with various digital signatures, we finally decided to capture the signatures from paper through webcam snapshot. It saved money and logistical hassle. Otherwise for the digital signature additional USB port was needed in the laptops. Another innovative decision was to add low-priced keyboard to each laptop so that the novice operators do not damage the integrated laptop keyboards. An additional challenge in the project was to establish an effective troubleshooting chain throughout the country so that technological glitches would not affect the operating state of the equipments.

The procurement, distribution and maintenance of a huge quantity of items like 1,60,000 reams of paper, 100 million laminating pouch, 6300 toner of 720 laser printers, 3500 generators and their spares posed a huge problem. Sometimes the foreign factory production line could not meet the running requirement on the ground. On many occasions, items like toner, laptops, laminating pouch, fingerprint scanners had to be airlifted directly from the production site to Zia International Airport. From there we directly dispatched them to the field of operation. In fact the slow pace of logistics procurement prolonged our field level registration time by about 2 months.

We came across various kinds of social challenges during the project. The most troubling was the use of individual's title before his first name. It was decided in a high level meeting that names to be written as per each person's SSC certificate. But many educated people wanted to reflect their professions before their given names with titles such as Lawyer, Physician, Professor, Teacher, Judge, Government Official status, Freedom Fighter etc. Managing these became difficult. The second issue was photographing women with veils. We organised a secluded corner for them with female operators. Another issue was the quality of photographs. Some of the operators could not capture the photographs properly. Other issues like determining age and date of birth of illiterate people, understanding the language and social customs of rural areas like that of Sylhet, Noakhali, and Chittagong posed considerable difficulty for us.

Skilled data entry operators and technical managers were the key to success of the project. Initially these tasks were performed by Army personnel. Gradually we trained students and local people in these fields. However in the coastal and bordering areas, suitable male/female operators were not available. So, on many occasions we transported operators from one district to another, organised their travel, accommodation, food etc so that the job could be completed in time. The nature of the job sometimes required female operators to work graveyard shifts and their safety became a point of concern. We had to organized police escort for them. A handful of operators even tried to beat the system with malpractices. For instance, instead of writing the full name of citizens they would type one alphabet and then move on to the next field. Some operators even copied their own