Case study: Developing technology to increase transparency and accountability in Nobo Jatra

"Improved gender equitable food security, nutrition and resilience of vulnerable people within Khulna and Satkhira districts in Bangladesh."

Aiming to reach 856, 116 direct beneficiaries across four Upazilas (sub-districts) in the climate and socio economically vulnerable south western region of Bangladesh is an ambitious feat for Nobo Jatra. A myriad of interventions are designed to achieve increased access to clean water and improved sanitation, improved maternal and child health and nutrition practices, increased use of climate smart agricultural techniques and natural resource management (NRM), improved income diversity, asset maintenance and savings, more alternative livelihood opportunities for youth, strengthened community disaster preparedness and response, increased mobility and voice for women and engagement at national policy level.

At last count, within the 856,116 direct beneficiaries, Nobo Jatra further aims to target approximately 26 categories of beneficiaries through its diverse and holistic range of interventions. Challenges surrounding accurate tracking and recording of beneficiaries along with minimizing overlap between the numerous interventions have been at the fore since day one. Accountability and transparency of

the selection procedure and the process and system used to capture, aggregate and disseminate data further underpins all program strategies.

Against this backdrop and with the clear incentive to efficiently manage the huge number of program beneficiaries, Nobo Jatra has developed a cutting edge real time **Management Information System (MIS)** to register households, enroll program beneficiaries assigning a unique ID to each individual, maintain up to service records and also produce accurate and valid analysis and reports. Aggregating data centrally through a robust MIS system will also increase the efficacy in consigning beneficiaries to appropriate and relevant program interventions. Reinforcing benefits of the technology also comes in the form of maximizing resources whilst minimizing cost and time implications in capturing and compiling critical program data. In positioning itself as a thought leader, there is a clear intention to move beyond tried and tested models that are not fully appropriate to and do not holistically meet the needs of a large scale program such as Nobo Jatra. Rather, the MIS system was conceptualized and designed to capture diverse ranges of program data and further provide regulated access to this data to all relevant stakeholders including the Government of Bangladesh, USAID, World Vision as a whole and Nobo Jatra consortium partners. Validated and accurate information relating to Nobo Jatra can subsequently be used to inform, adapt, scale and replicate future programs and also be leveraged for further research across Bangladesh and the region.

A further ambition in developing this specific technological intervention tailored to advance Nobo Jatra goals and purposes is to amplify capabilities and strategies to highlight the intersection between technology, transparency and accountability in a flagship food security, nutrition and resilience program such as Nobo Jatra. Given the complex and intersected design of interventions, the system can effectively monitor the authenticity of activities such as the formation of Village Development Committees, attendance at SBCC sessions as well as other nutrition monitoring services such as GMP sessions, entrepreneurial literacy training therefore maximizing the overall transparency of the program.

How does the entire process work?

Naturally, given the scale of the task, a comprehensive chronological process is followed throughout the registration system. As a first step, at ground level, the program frontline team undertake a participatory rural appraisal technique involving a transect walk in order to demark village boundaries and enhance understanding of local vulnerabilities and risks. Concurrently, led by the local community in each village, social mapping also takes place in order to identify and provide each household with a unique code and wellbeing analysis to further identify potential households via socio economic category.

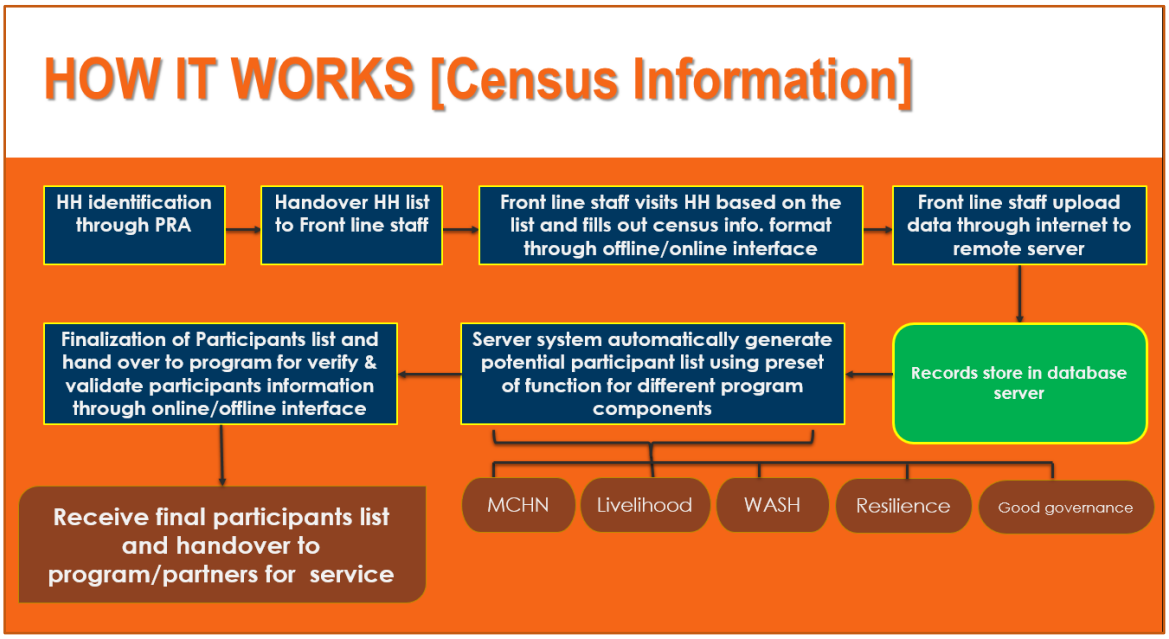

Figure 1: Census information diagram

Upon handover of data from the social mapping and wellbeing analysis, the Nobo Jatra MIS team reviewed program requirements and proceeded with the actual development of an android app designed to capture offline/online household census data in remote program locations using Huawei MediaPad 7" tablets. Once connected to the internet, the data automatically syncs to the secure web database server with stored data then used for analysis, reporting, judicious decision making and recalibration of program interventions or purposes based on location, intervention, timeframe and population demographic.

Further enhancing transparency and accountability in the selection process as well as the mechanism to verify and validate data, an online interactive application has also been developed whereby assigned users are able to validate household information by tracking individual members of households and enabling real time access to generate data. Significantly, the system enables respective teams within Nobo Jatra to generate beneficiary lists based on category and type of intervention. For example, the number of pregnant and lactating women by village in order to finalize participants who receive conditional cash transfers as part of MCHN interventions, children under 5 by union who are eligible to attend GMP sessions along with a mechanism to track attendance which is a prerequisite to receive conditional cash transfers.

Overall, the system has been designed to strengthen accountability and accuracy by assuring that the data reported on the number of households and beneficiaries along with GIS coordinates that will

generate geo partial reports that promote aid transparency are valid, impartial and up to date. In turn, this validation of data helps the analysis of the numerous activities implemented by different program components, along with the services provided and committees formed or reactivated. Furthermore, the technology developed produces critical reports that allow the M&E team to review data, identify inconsistencies and other anomalies which can then be directly addressed as part of ongoing program modifications and improved decision making.

A snapshot from Uttar Sripur Village

Thus far, the discussion has focused on technology and innovation in the abstract. A clearer indication of how the system works can be garnered at ground level where Nobo Jatra frontline staff engage in the data collection process simultaneously building a level of trust and rapport with the local community and laying the groundwork for cooperation over the program cycle.

One of the first sights upon entering Dakhim Sripur Union in Kaliganj Upazila, a Nobo Jatra working area, is that of young women cycling to school. The roads are lined with local vendors selling water chestnuts with small ghers (water bodies) as far as the eye can see cultivated with local varieties of small fish. The image is somewhat starker the further you travel within the Union to reach remote villages such as Uttar Sripur Village. Homes are basic one room mud structures often housing families of five or six, latrine conditions are poor at best and local residents are largely dependent on seasonal migration or day labour in local ghers averaging a week of work in a month. There are some signs of small scale poultry or duck rearing with little indication of homestead gardening given the rife salinity and ground water contamination that affects the area.

Nobo Jatra Community Nutrition Facilitators (CNFs) and other frontline program staff are systematically working their way through the village registering participants, household lists and tablets in hand. As of September 2016, 5,036 households have already been registered across 23 villages. Significantly, the staff all hail from the union and understand the landscape including the challenges and adversities experienced by each household. Data from each household is captured efficiently through the offline app following a thorough and diligent process.

Ador Ali, an elder gentleman and lifelong resident of Uttar Sripur Village, heads a household of 4. Roshanara, his wife, interacts shyly with the CNF collecting the data, providing full cooperation and information.

'My husband is old and suffers from dementia. We stay afloat on the income from a small 7 kata gher. That's our only source of money now.'

Whilst they own the land their one room home is built on along with their own poorly maintained latrine as well as a functioning tube well, the family have little in the way of assets with no poultry or

ducks. Roshanara provides her son's mobile number as contact information along with the national ID cards of everyone in the family. All of this information is critical to store in order to assign and include the household in upcoming program activities.

Data captured by CNFs on a female headed household further inside the village presents a more dire picture of the hardships endured by the local population. The household comprises an elderly mother, Joru, her divorced daughter and 10 year old grandson. Built on the bank of a small pond, the home has one elevated mud room with drinking or cooking water having to be collected from a neighbor. Intermittent daily labor in the local ghers is the only source of income for the small family with an average of one week's work in a month earning approximately 80 taka per day. A CNF systematically works on the tablet carefully recording data in the provided format whilst taking every care to clarify questions and requests to the household.

Following a carefully designed process, household lists for each village generated through the initial PRA exercises are further streamlined into lists per area of a village with each CNFs allocated a list to cover. All data captured offline is systematically uploaded to the MIS system when CNFs return to each respective Nobo Jatra Upazila office with all data downloaded at the end of each week and stored in the system in chronological folders for ease of access and sorting. Multiple users who are allocated access such as Technical Managers are then able to access up to date data in order to generate lists of potential beneficiaries by program intervention, draw up lists of participants for various trainings and also monitor attendance which is critical in SBCC outreach activities and also a prerequisite for certain interventions such as conditional cash transfers, cash grants for business plan development.