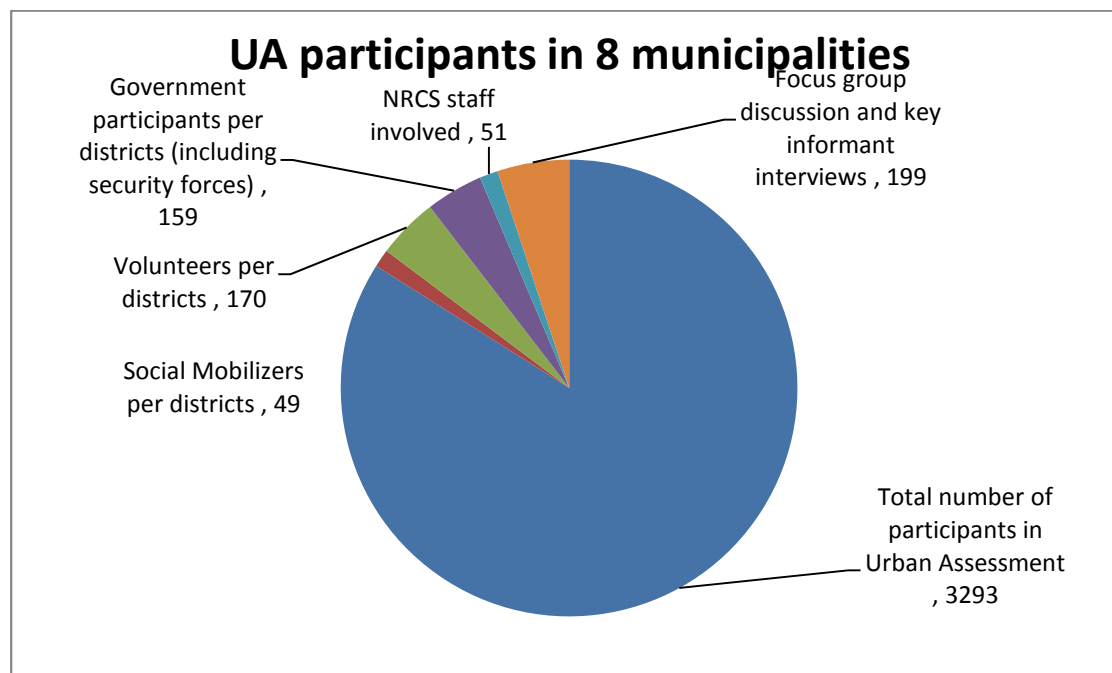## Summary of Urban Assessment Results

April 2017

This Urban Assessment was conducted in eight municipalities across five districts. Six of these are within the three districts of Kathmandu Valley: Kathmandu Metropolitan City and Budhanilkantha Municipality in Kathmandu district, Bajrabarahi and Karyabinayak municipalities in Lalitpur district and Bhaktapur and Madhyapur Thimi municipalities in Bhaktapur district. Municipalities are some of the highest and most densely populated, and include two municipalities less than a year old.

The two other municipalities are Pokhara Sub-Metropolitan City (now Pokhara Metropolitan) and Dhangadhi Sub-Metropolitan City. These two cities are among the fastest urbanising areas in Nepal, with urbanisation rates of above five and four per cent respectively. They are experiencing significant unplanned development, and contain urban cores and urbanising wards in the periphery. Pokhara has the second highest municipal population in Nepal (after Kathmandu Metropolitan City), and Dhangadhi has the highest population in the Far-Western Development region.

Population that participated in Urban Assessment

Across municipalities, different groups that were included in the study process were: vulnerable groups, municipality officials, security forces, government officers, non-government organisations, political parties and local journalists. Figure 1 outlines the range of participants involved in the urban assessment.

Figure 1: Overall participants

UA participants in 8 municipalities

Government participants per districts (including security forces) , 159

NRCS staff involved , 51

Focus group discussion and key informant interviews , 199

Volunteers per districts , 170

Social Mobilizers per districts , 49

Total number of participants in Urban Assessment , 3293

Vulnerable groups

Recommendations from the review of EPS and DFID DRM programmes in Nepal highlight the need for more explicit social inclusion strategies in future urban CBDRM programming. Building on the SURE proposal and inception phase, the programme has developed its urban citizen engagement

framework in an attempt to reach and better engage 'hard to reach' groups in the urban area. This approach separates citizens into two categories: general urban citizens and, within this, specific vulnerable groups who will be the focus of SURE. Working with specific vulnerable groups, schools and general citizens (using the 6 types of 'communities') the programme seeks to achieve **depth by reaching the most vulnerable and breadth by supporting citizens to raise their voices** to the local and municipal government levels.

10-16 vulnerable groups were identified in each municipality through consultation, and each was assessed as part of the UA. Although the total types of vulnerable groups that took part in the urban assessment was 21 (see figure 2 for overview). Groups common to all municipalities included Dalit; school children; single female headed households; labour workers; landless people; Persons with Disability (PwDs); and, Janajati.

Figure 2: Vulnerable groups
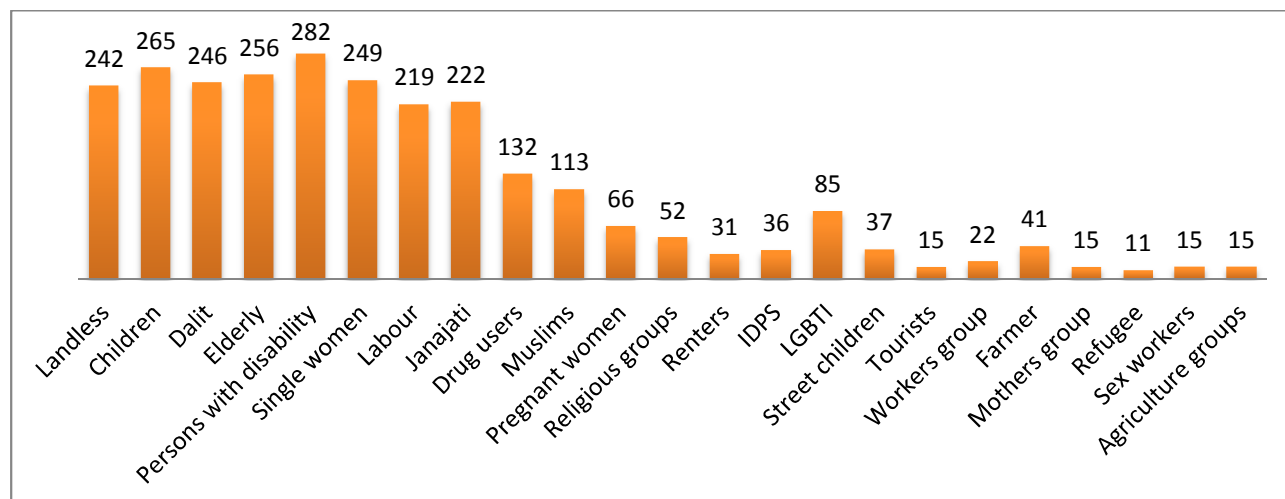
Vulnerable groups specific to each municipality were also included in the assessment such as renters, street children, tourists and Internally Displaced Persons (IDPs) in Kathmandu.

NRCS district chapters were then asked to rank and select four of these groups against criteria of:

- o   their level of vulnerability to disasters
- o   the groups' willingness and interest to build their disaster resilience
- o   the NRCS' skills and experience in working with the groups.

The four selected groups of each municipality are shown in Figure 3 below. A total of 10 different types of vulnerable groups were selected.

Strengthening Urban Resilience & Engagement (SURE)

Vulnerable groups	KTM Metro	Budhanilkantha	Bajrabarahi	Karyabinayak	Bhaktapur	Madhyapur Thimi	Pokhara	Dhangadhi
Landless / slum	X					X	X	
People living on river banks						X		X
Street vendors	X		X		X			X
Labourers (daily wage earners)			X	X	X			
Dalit		X		X	X		X	
Janajati	X	X	X	X		X		
Single female-headed households		X						X
PwDs	X	X			X	X	X	x
Unemployed youth			X	X				
Elderly							X	

Note. There is much cross over between these groups and the baseline will shape our interventions to target each of these groups effectively.

Disaggregated data (gender and age)

The UA disaggregates data by both men and women. The UA had considerable participation of both men and women. In most of the analyses including network analysis and mobility mapping, there was higher female participation in comparison to men. In Kathmandu and Pokhara, people belonging to third gender (LGBTI community) were also included in the course of the study, identified as vulnerable groups.
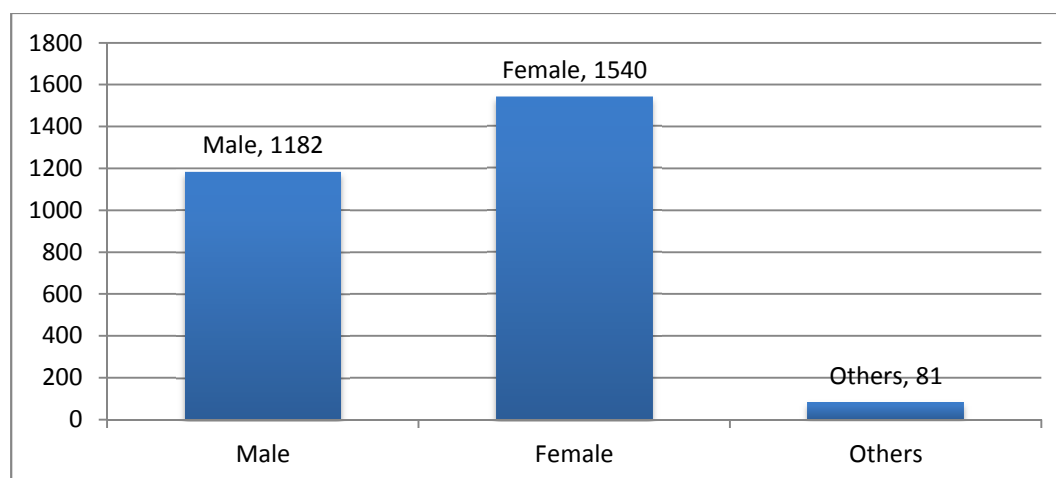
Figure 4: Gender breakdown

Figure 4 above shows that female outnumbered male in terms of coverage in the UA of eight municipalities, however government officials, members of the security force, CBOs/ NGOs and political parties were all male dominated. 81 respondents belonged to the 'others category' referring to the LGBTI participants.

Likewise, on the basis of age-category division, most of the participants across all municipalities were between the ages of 16-59. As the elderly were identified as a vulnerable group in all municipalities, there were participants also above the age of 60. Similarly, most of the children who participated in the study process were between 6-15 years of age.

Hazard analysis

Hazard analysis in the UA of eight municipalities involves hazard identification and ranking exercise, where participants identified hazards on the basis of their likelihood and impact. Hazards were ranked on a scale of 1(high) to 5 (low).

Over 26 different types of hazards were identified during the UA, with vulnerable groups prioritising the hazards specific to them (listed in figure 5**). The SURE programme, as a multi-hazard programme, will focus on 11 hazards** (listed in figure 5). These hazards have been selected based on the priority level assessment by the citizens surveyed, coupled with the current skills and strengths of Nepal Red Cross. Note that the hazards listed are in no particular order as the priority of each of the hazards varies across municipalities and for each vulnerable group as well.

Figure 5: list of hazards identified through the UA process and hazards SURE programme will be targeting.

Hazards identified during the Urban Assessment process		Hazards SURE programme will be targeting
Fire – house	Animal attack	Fire – house
Earthquake	Human trafficking	Earthquake
Road accident	Sexual assault	Road accident
Snake bite	Glacial lake outburst floods	Snake bite
Epidemic (water borne)	Avalanche	Epidemic (water borne)

Strengthening Urban Resilience & Engagement (SURE)

Floods	Snow storm	Floods
Landslide	Heat wave	Landslide
Cold wave	Hailstorm	Cold wave
Pollution	Debris flow	Pollution
Drought	Global warming	Drought
Thunderstorm	Electric shock	Thunderstorm
Lightning	River bank erosion	
Sink holes	Strong wind	

The data from the UA shows that **earthquake has been identified as a priority 1 hazard by most of the vulnerable groups in all of the six municipalities in Kathmandu Valley** (all of which were affected by 2015 earthquakes). Fire and road accidents were also identified during the UA as high priority hazards in Kathmandu Valley municipalities. Other hazards identified by vulnerable groups in the priority 2 level included: fire, landslide, pollution, drought, epidemic, storms, road accidents, and labour workers identified human trafficking as a major hazard for their group.

The UA data shows that vulnerable groups of **Dhangadhi rated floods as a top hazard of concern**. Historically the area has experienced heavy loss of human life and property in the past few years due to flooding. Interestingly, the **largest loss of life from a disaster has been from epidemics** (post flood). Landslide, fire, drought, cold wave, earthquake and road accidents were the classified as priority 2 hazards.

In **Pokhara, floods and landslide, earthquake, fire, hailstorm, unmanaged drainage, road accidents, sinkholes have been identified as priority 2 hazards.** Other hazards including animal attack, river bank erosion, electric shock, pollution, non-communicable disease among others have been rated as priority 3 hazards.
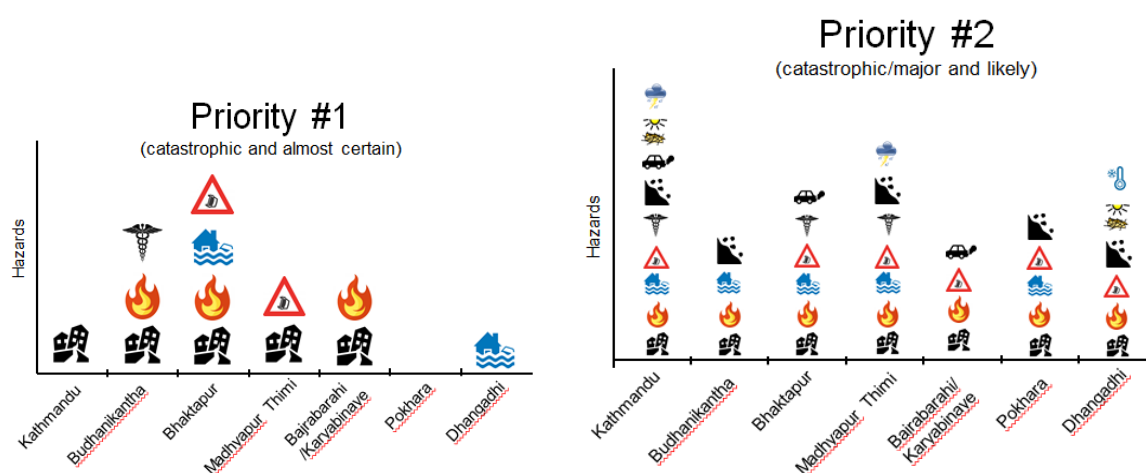

Diagram 1: Priorities 1 & 2 as identified by the hazard risk matrix tool

Impact of disasters

Vulnerable groups identified that livelihoods was one of the areas impacted by disasters. As part of the assessment each of the vulnerable groups were asked about a disasters' impact on their livelihood and strategies they applied in order to overcome a disaster. All groups in the sited that the

earthquake and other recurring hazards like flood, fire and road accidents, all directly impacted on their economic security. This ranged from loss of food-stock, disruption of income for daily wage earners, loss of structures, and hike in food and commodity price.

The UA identified common coping strategies that highlighted the reliance on informal networks by people. The most commonly stated coping strategy in any disaster included community-based practices of living together, sharing food and collecting funds within the community to distribute to those that were affected. Other coping strategies relied upon post disaster included using household's savings in cooperatives and banks, food-stock available in the house, and relief support received from various agencies.

Network analysis: Importance of informal networks

Social institutions and networks that people rely heavily provide insight to the types and levels of social reliance and social cohesion of those networks (as key enabling factors of resilience). The UA study identified formal and informal networks that vulnerable groups interact with on a regular basis. The interaction was measured along three variables: 'Importance', 'Frequency' and 'Distance'. The networks mentioned by the vulnerable groups and a ranking of importance, frequency of interaction and distance of mobility, were recorded pre and post disaster in order to identify changes in the perception and utilities of specific formal-informal networks.

Common networks were identified by groups across municipalities and included the informal (relatives, family, temple) and formal networks (schools and workplaces, bank/cooperatives, municipal office/ ward office). **Most of the groups across all municipalities identified family, schools and workplace, as the most important networks both pre and post disaster**. They have high frequency of interaction with these networks, and they typically reside within the district.

Perceived level of importance of bank/ cooperatives and government offices, among groups across all districts scaled up post disaster, indicating that these networks played an important role post disaster. With exception of the elderly (who rated this highly), most of the groups identified temples as a least important network, even though it resided within the ward area.
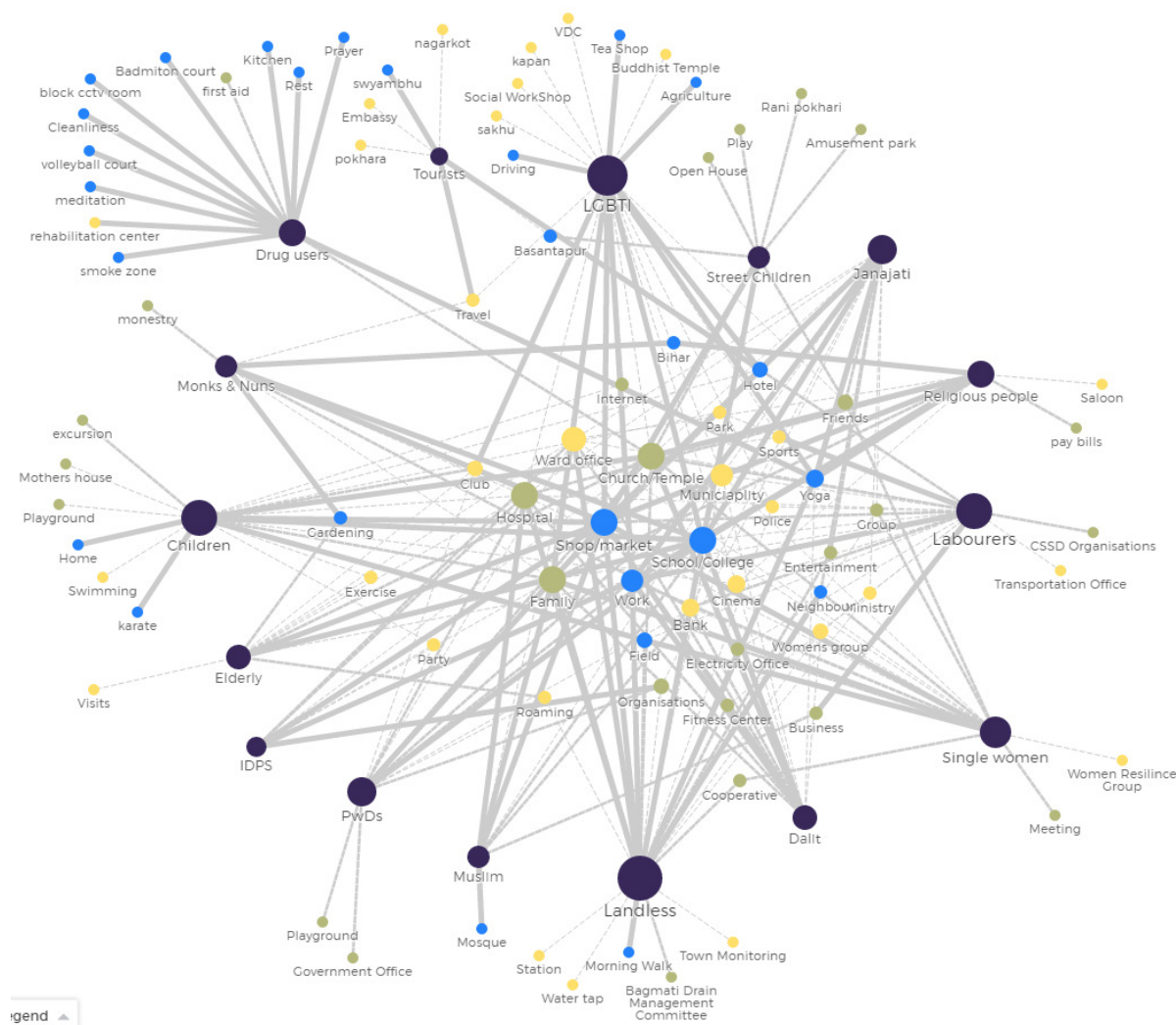
Diagram 2. Social & Institutional Network Analysis KATHMANDU METRO Pre-disaster

Mobility mapping

In order to better understand how people move in the urban context and to inform SURE's urban engagement and accountability strategy; the study undertook mobility mapping. The mobility mapping recorded locations of individuals throughout an average 24 hour time period, including the travel time and modes of transportation used.

By distance, mobility mapping analysis in all municipalities shows that most of the groups are usually within the proximity of the ward. This was particularly true for elderly and single female headed households groups surveyed. Periods of greatest movement were between 9am-6pm. In most cases, workplaces and schools were located within the municipality or within the district. There were some exception such as school children of Bhaktapur municipality travelled to Kathmandu by public bus to go to schools.

The mode of transportation depended upon the distance being travelled. Individuals traveling under an hour would walk; those travelling outside the municipality would either take public transportation or motorcycle.
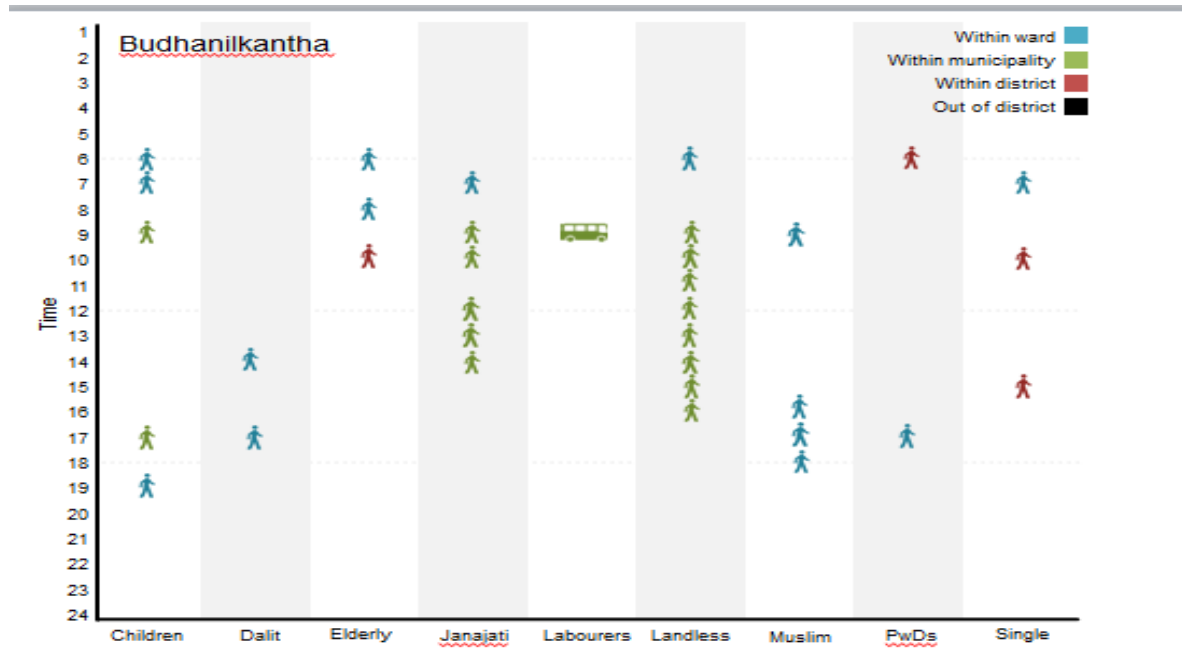
Diagram 3: 24 hour clock of Budhanilkantha, using the 24 hour clock tool.