

Development, disasters and squatter settlements in urban Nepal: A review of characteristics and challenges¹

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Southasia Institute of Advanced Studies (SIAS), February, 2020

Background

Nepal is among the least urbanized countries. Yet, with an urbanization growth rate of 3% for the period from 1990 to 2014, it is among the top-ten fastest urbanizing countries in the world (UNDESA, 2015). Urban growth in Nepal started in the 1950s following the political change of 1951 which ended the period of isolation and opened to the outside world. The development activities, most of which were through foreign assistance, resulted in the dramatic change in the growth of towns and urban centers in Nepal (Basyal and Khanal, 2001).

The first modern census of Nepal, conducted in 1952/54, showed only 2.9% population of the country lived in 10 municipalities, the urban centers in Nepal (MoPE, 2017).² Among them, five municipalities were in Kathmandu Valley and the remaining five were out of Kathmandu Valley. Hill-Terai migration, expansion of state bureaucracy, increase in the volume of trade with India, construction of new roads and other infrastructures resulted in new market centers and soon accelerated urban growth in the country (Basyal and Khanal, 2001). The number of urban centers rose up to 16 in 1961, 23 in 1981, and 33 in 1991 which further increased to 58 in 2001. The urban population of Nepal increased to 13.9% in 2001 and to 17% in 2011, residing in 58 municipalities. With the declaration of new municipalities since 2014, the number of municipalities increased to 190 municipalities in 2014 and to 217 in 2015. Further new municipalities were declared and restructured in 2017. Since then, Nepal has 293 municipalities, including 6 metropolitan cities, 11 sub-metropolitan cities and 276 municipalities. The urban population of Nepal has increased to

¹ This working document is based on a brief review of broad literature and can change during further detail reviews and revisions.

² An “urban area”, in the case of Nepal, refers to a municipality (*nagarpalika*) (with a settlement exceeding 5000 population; minimum population density 10 ppha (National Urban Policy, 2007). Definitions of what constitutes a municipality have been inconsistent and have frequently changed over the years (UN-Habitat, 2010; see also Basyal and Khanal, 2001). Local Government Operation Act, 2017 classifies urban areas as municipality, metropolitan and sub-metropolitan. The classification is mainly based on population size, annual income of residents and provision of services and suitability of infrastructure.

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more than 60% (Shrestha et al., 2018). Further, the government has planned to develop new towns in both the hilly and Terai region (see Dahal and Timalisina, 2017). While the construction of the currently planned 10 satellite cities is yet to start, the Government of Nepal (GoN) has a target of constructing 60 satellite cities by 2030 (NPC, 2017).

Considering the ambitious aim to be a middle-income country by 2030 and the current developmental priority of the GoN on urbanization “as the best way to sustainable development” (MoUD, 2016: 3), the transformation of Nepal from a rural to an urban-based country will accelerate, rapidly changing social, economic, political and environmental landscape of the country. However, with decades of unplanned urbanization and already lagging basic urban infrastructures, urban areas of Nepal are beset with serious socio-environmental issues, including increasing urban poverty and risks of multiple hazards. Nearly 7% of the total urban population lives in squatter settlements (UN-Habitat, 2010). While urban poverty is rising and anticipated to rise further, the institutional capacity for urban planning and management is poor, and wide is the gap between urban investment needs, financing, and implementation capability (MoUD, 2015). It is among the 20 most disaster-prone countries in the world (UNDP, 2011; MoUD, 2017; UNDRR, 2019). It ranks 11th in terms of global risk for earthquake occurrence and impact (NSDRM, 2009; Paudel and Panthi, 2010; UNDRR, 2019 and 30th in terms of vulnerability to floods (UNDP, 2011). Moreover, rapid urban growth in Nepal is accompanied by increasing inequality, social and economic exclusion, and environmental degradation making some within Nepalese society more vulnerable than others (see ADB, 2010). Such situations are reported even within squatter settlements, (Mahaseth, 2017; Gallagher, 2016). Yet little is known how such differences are co-produced and why some actors manage to adapt and overcome while others remain marginalized.

More recently, the central government, together with international aid agencies, is increasingly pressurizing local authorities to integrate and implement development and disaster risk management policies (Jones et al., 2014). In these contexts of increasing urbanization-related risks and risks reduction interventions, the dynamics of urban political economy and political ecology and how these shape and is shaped by changing urban governance policies, practices, (tacit) involvement of actors as well as exposure to and experiences of risk and resilience need more critical analysis. This study is an initiation towards undertaking such an in-depth analysis. Following this brief review of urban development in Nepal, we present the inter-linkages of urban

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expansion and increasing multi-hazard risk in Kathmandu Valley, which includes Kathmandu, the capital of Nepal. In the next section, we briefly present some major disaster management initiatives in Nepal. Following this, we briefly document the origin and current status of the squatter settlement and the efforts made for resettling the squatter in Kathmandu Valley. The last section includes a brief review of the existing situation at the proposed study sites, Manohara squatter settlement and Dhulikhel municipality, socio-political dynamics in both of which remain largely under-explore.

Table 1: Urban growth in Nepal

| Year | Urban population | Number of urban centers | % of Urban population |
|---------|------------------|-------------------------|-----------------------|
| 1952/54 | 238,275 | 10 | 2.9 % |
| 1961 | 461,938 | 16 | 3.6 |
| 1981 | 956,721 | 33 | 6.4 |
| 1991 | 1,695,719 | 58 | 9.2 |
| 2001 | 3,227,879 | 58 | 13.9 |
| 2011 | 4,523,820 | 58 | 17 % |
| 2014 | | 190 | |
| 2015 | | 217 | |
| 2017 | | 293 | Over 60 % |

Source: Compiled based on MoPE, 2017; Shrestha et al., 2018

Kathmandu Valley: A brief review of urban expansion and increasing multi-hazard risk

Kathmandu Valley is one of the fastest-growing urban agglomerations in South Asia (Muzzini and Aparicio, 2013). Administratively, the valley includes two metropolitan municipalities and 16

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municipalities in three districts: Kathmandu, Lalitpur, and Bhaktapur.³ Together, these districts cover an area of 899 sq. km, whereas Kathmandu Valley, covering parts of Kathmandu (approximately 85%), Lalitpur (approx. 50 %) and Bhaktapur districts (100%), has an area of 654.7 sq. km (Shukla et al., 2010; Genesis et al., 2015). Historically, Kathmandu Valley used to be known as Nepal and any early history of Nepal is actually the history of Kathmandu Valley (ICIMOD, 2007). Many small towns were already established in this valley by the second century, and urban centers by the 11th century. The valley has always been an important cultural and religious center, and also constituted a hub in the trade route between India and Tibet (ibid). With the unification of Nepal after the Gorkha Conquest in 1769, Kathmandu was made the capital. Since then, Kathmandu continues to be the center of power and politics in the country (Shukla et al., 2010).

The earlier settlements in this valley were located on the drier, less fertile elevated land. This type of land use practice was based on a conscious land use strategy for maximizing the area of agricultural land, preserving fertile and irrigable agricultural land and protecting the settlements from floods (Tiwari, 1999; Shrestha and Shrestha, 2009). The rivers were clean, and irrigation helped recharge valley aquifers. A buffer strip of land separated rivers and settlements (NWCF, 2009). After the Gorkha conquest, the physical development of the valley was greatly influenced by the construction of new palaces outside the city core. This practice was most prominent during the Rana regime (1840-1950) (ICIMOD, 2007).

The exclusively agricultural character of the landscape of the valley rapidly changed from the 1950s onwards, with the abolition of the Rana regime (in 1951) and development of the first highway (in 1956) connecting the valley to the southern part of the country. A ring road around the existing urban core in the valley was built during the 1970s. This road significantly enhanced the urbanization process across the valley (Thapa and Murayama, 2010). Industrial activities also emerged and expanded from the 1970s, which increased employment opportunities. Between 1981 and 1991 the valley's urban population increased by over 82 %. Migration accounted for 59 % of this increase, while the population involved in agriculture decreased from three-fourth to one-third of the total population (ICIMOD, 2007). Instead of regulating this trend of urbanization, successive

³ The number of municipalities in the valley has increased from five until mid-2014 to 18 in 2017.

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governments in the past adapted centralized policy and concentrated development projects in the valley, which deeply transformed the rural agricultural landscape of the valley.

Growing about 4.3 % annually, the population of the valley increased by over 499 % between 1955 and 2008 (Bhattarai and Conway, 2010), and reached over 2.5 million in 2011 (CBS, 2012). The most intensive urban growth happened between 1999 and 2009, largely fueled by the influx of migrants from the countryside who had been displaced by political turmoil⁴ (Ishtiaque et al., 2017). The share of the internally migrated population to the total population is about 40 % in Kathmandu Valley (UN-Habitat, 2010). The built-up area in the valley has increased from 5.1 % in 1989 to 26.06 % in 2016, showing a tremendous increase of 412 %, mostly at the expense of agricultural land (Ishtiaque et al., 2017). Given the nature of present urban growth, the northeastern landscape of the valley is likely to change into built areas at an increasing rate as compared to the other rural areas (Thapa and Murayama, 2012). This is likely to influence the pace and pattern of urbanization in the adjoining municipalities such as Dhulikhel.

Historically Kathmandu Valley has suffered from several destructive earthquakes. It was also among the areas most severely hit by the catastrophic earthquake of 2015 which killed 1,735 people, injured 13,102 people. Similarly, 73,624 buildings were completely damaged beyond repair, while 68,937 buildings were suffered from partial damage (Genesis et al., 2015). Yet, as Goda et al., (2015) caution the 2015 earthquake was not necessarily the worst-case scenario and stress the need of better earthquake engineering design for reducing potential seismic risk. Steady urbanization has also produced considerable negative impacts including traffic congestion, atmospheric pollution, and destroyed the former nature-based socio-cultural practices. With the discharge of untreated sewage and the widespread dumping of solid waste, the rivers in the valley are highly polluted, increasing the risk of epidemics of diseases. The haphazard concretization in the valley has increased the demand for and pollution of water while reduced the percolation of surface water, resulting into rapid decline of the groundwater level and increasing the risk of land

⁴ The Maoist “People’s War” in Nepal was launched on 13 February 1996 and officially ended with the peace accord of 21 November 2006. While over 13,000 people were killed during this ten-year (1996- 2006) conflict, tens of thousands of people were displaced (USAID, 2006; UN, 2012). This resulted in massive migration to more urban areas in reaction to the Maoist insurgency in rural areas. In 2015, Nepal promulgated its new Constitution. Following the local and provincial elections held in 2017, Nepal formally adopted a new three-tiered federal structure of government. Nepal has seven provinces now, with a total of 753 local government units.

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subsidence (Shrestha et al., 2012). Agricultural land along river banks is rapidly converted into residential areas and the rivers have been steadily encroached upon. For instance, the riverbank of Bagmati, the principal river of Kathmandu Valley, and its tributaries is home to proliferating squatter population in the valley. According to the Nepal Landless Democratic Union Party, there are more than 29,000 landless people in Kathmandu Valley, living in 73 different squatter settlements, many occupying the land for more than four decades. Of them, 1,082 families were registered as squatters in 2012.⁵

With the unplanned urban expansion, Kathmandu Valley is facing multiple socio-environmental issues. An example is recurrent flooding, adding pressure on the existing infrastructure and exposing the residents to the risk of flooding.⁶ Studies show that the average annual temperature in Kathmandu Valley is increasing (0.033°C/year) while no clear long-term rainfall trend was found (Sada et al., 2016; UN-Habitat, 2015). Assessment of the overall climate change vulnerability in Nepal shows among the three districts in the valley, Lalitpur has low vulnerability while Kathmandu and Bhaktapur are highly vulnerable (MoE, 2010). In addition, uncontrolled conversion of agricultural land to built-up areas also raises questions about food security, particularly in cases like trade embargo as experienced in 2015. A study on Safer and Affordable Housing for Urban Poor in Kathmandu Valley conducted in 2010 stressed that Kathmandu Valley has a huge housing deficit, urban poverty and an increasing gap between the rich and poor (ADB, 2010; MoUD, 2015). Kathmandu Valley, which has the highest number of slums and informally settled population also has the highest unemployment rate (8%) (CBS, 2011). Rapid and unplanned urbanization coupled with low economic growth, poor urban services, rapid migration and growing inequalities have exposed a growing urban population in the valley to multiple hazards. Often, most vulnerable are the city's poorest social group, especially those living in squatters settlements (Shrestha et al., 2018; Toffin, 2010).

While the valley is increasingly disaster-prone, it seriously lags preparations to deal with risk and disasters. Aiming to manage urbanization in the valley, in 2012, the GoN formed Kathmandu

⁵<http://kathmandupost.ekantipur.com.np/news/2019-07-15/riverside-squatters-in-thapathali-spend-sleepless-nights.html>

⁶ Floods have had the largest impact out of climate related disaster events in Nepal (GoN, 2019).

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Valley Development Authority (KVDA)⁷, as authority to prepare and implement an integrated physical development plan for Kathmandu Valley. KVDA, as the formal authority for planned development of the valley, has drafted a 20 years strategic master for development of the valley (see KVDA, 2015). It has also prepared a Risk-sensitive Land Use plan and revised the Building Bye-Laws “to contribute to risk resilience development of Kathmandu Valley” (Genesis et al., 2015). Other initiatives of KVDA include development of four smart cities on the outskirts of the valley and construction of outer ring road.⁸ KVDA, however, lacks co-ordination with the newly elected local government bodies who have been accusing that KVDA interfere with their governance rights and roles and have been demanding the government to dissolve the former.⁹ Given these contestation, the progress of these initiatives and implementation of land use plan prepared by KVDA likely to take time while the urban growth is rapid.

Disaster Management Strategy in Nepal

Nepal’s geographical location, unplanned infrastructure development, and rapid urbanization have made Nepal prone to natural and non-natural disasters. Nepalese government has formulated a number of natural disaster preparedness plans, programs, and acts. The most prominent of them is the Natural Calamity (Relief) Act, of 1982, which has been recently replaced by the Disaster Risk Reduction and Management Act 2017. At international level, the Government of Nepal has committed to several international initiatives towards disaster risk reduction and management and initiatives around Climate Change and Sustainable Development Goals, including the implementation of Hyogo Framework for Action: 2005-2015 and the Sendai Framework for Disaster Risk Reduction 2015-2030. Nepal is also a member of the Regional Consultative Committee on Disaster Management (RCC), a regional mechanism to promote peer advocacy and exchange of expertise in disaster and climate risk management.

In the recent years, particularly after the disastrous earthquake of 2015, the government has increased its efforts for strengthening disaster risk governance and improving disaster risk

⁷ Kathmandu Valley Development Authority (KVDA) was formed in 2012 as the authority to prepare and implement an integrated physical development plan for Kathmandu Valley.

⁸ <https://www.nayapatrikadaily.com/news-details/34323/2020-01-22>

⁹<https://myrepublica.nagariknetwork.com/news/municipalities-demand-scrapping-of-kvda/>

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management by revisiting legal frameworks, policy and planning, organizational aspects, institutional capacities, and partnerships. The 2015 Constitution of Nepal recognizes the need “to make an advance warning, preparedness, rescue, relief, and rehabilitation in order to mitigate risks from natural disasters” setting the conducive environment for transformation from the response and relief-centric law towards legal frameworks for disaster risk reduction and management. The government has formulated the Disaster Risk Reduction and Management Act 2017, National Policy for Disaster Risk Reduction 2018, and Disaster Risk Reduction National Strategic Plan of Action 2018-2030.

As mentioned above, Kathmandu Valley Development Authority (KVDA), with the support of UNDP’s Comprehensive Disaster Risk Management Programme (CDRMP), has prepared Risk Sensitive Land Use Plan (RSLUP) for the valley and revised the Building Bye Laws of Kathmandu Valley to promote earthquake risk-resilient urban development. KVDA envisions mainstreaming risk reduction strategies and their implementation both at the valley level in the planning, developing, monitoring, and regulating/prohibiting by KVDA as well at the municipal levels by the respective local bodies through consultative participation of the local stakeholders. Under the federal system, local governments have much wider power and responsibilities and the Local Government Operation Act 2017 has mandated local governments to manage the local services, local level development plans and projects and mainstream disaster risk reduction and management in such initiatives. National Building Code and Building Byelaws are mandatory in the Nepalese municipalities. After the 2015 earthquake, municipalities became more attentive to implementing the National Building Code (NBC). Yet, incorporation is still weak as the recently declared municipalities lack enough resources and people are less aware of the importance of disaster preparedness.

As provisioned in the DRRM Act 2017, the government has recently established the National Disaster Risk Reduction and Management Authority (NDRRMA). NDRRMA, under the Ministry of Home Affairs, is the lead agency for coordinating disaster management preparedness, relief and recovery and implements disaster risk reduction and management activities in coordination with National, District and Local levels Disaster Management Committees. The DRRM Act also has the provision of a high-level National Council and Executive Committee (EC) chaired by the Prime Minister and the Minister of Home Affairs respectively. The Council has a provision of having all

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chief ministers of seven States as members for establishing better communication and coordination in adopting a more holistic and wholesome approach to DRM in Nepal. NDRRMA works under direct oversight and control of the Executive Committee (EC) and in close cooperation and coordination with all DRR stakeholders as and when necessary. The GoN is in the process of preparing the guidelines and standards at the federal level which would serve as the guidelines for the province and local governments and their entities. The analysis identified 8 guidelines to amend and 18 to formulate as new. MOHA has prepared a 3-year plan to prepare and amend as necessary, these policy documents are targeted to complete by 2021 (see GoN, 2019).

Many civil society organizations and non-governmental organizations are also working in disaster management sector in Nepal. Some of these are Nepal Red Cross Society (NRCS), National Society for Earthquake Technology-Nepal (NSET), Kathmandu Valley Earthquake Risk Management Program (KVERMP), Disaster Preparedness Network-Nepal (DPNet-Nepal), Disaster Management Network Nepal (DiMaNN), National Network of Community Disaster Management Committee (N-NCDMC), Nepal Geological Society (NGS), Nepal Landslide Society (NELS), The Society of Hydrologists and Meteorologists – Nepal (SOHAM-Nepal), Nepal GIS Society (NEGISS), Association of International NGOs (AIN), and the Centre for Disaster Studies of the Institute of Engineering (IOE). Similarly, several independent and autonomous entities are established under the constitution including the National Human Right Commission of Nepal, the National Dalits Commission (NDC), the National Inclusion Commission National Women Commission, and the Indigenous Nationalities Commission. Such organizations and commissions are working on diverse issues, including advocating for the rights of marginalized groups, as well as the state's accountability and transparency in various circumstances, including disaster reduction, response, and management.

Origin, proliferation and current status of squatter settlements in Kathmandu Valley

A clear manifestation of the poor capacity of the state to address unplanned urbanization is the increase of slums and squatter settlements in urban areas of Nepal (ADB, 2010). UN-Habitat (2003) ranked Nepal as 4th in a list of countries with the highest percentage of the population living in slums or squatters settlement (Rademacher, 2009, as cited in Little, 2012).

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UN-Habitat defines a slum household “as a household lacking one or more of the following: Improved water; improved sanitation; sufficient living area; Durable housing; and Secure tenure” (UN-Habitat, 2010 in Paudel et al., 2014; UN-Habitat, 2003). Little (2012) argues there is a fundamental difference between slums and squatter settlements in Kathmandu Valley. Although the inhabitants of both types of communities suffer from multiple deprivations, a basic lack of land rights for people who live in squatter settlements makes their living conditions much less secure (ibid). Brooks (2016) clarifies squatters are the individuals that do not have legal rights to the land where they are settled while “slum” refers to the living conditions and physical and social characteristics of a settlement. Without basic infrastructure and services provided by the government, urban squatter settlements are commonly characterized as slums due to their impoverished living conditions, highly congested spaces and an absence of public facilities such as education, health, safe drinking water, sanitation and waste management (ibid). A study by Lumanti (2008) identified 45 impoverished communities, of which 40 communities were considered “squatter settlements” because of a fundamental lack of land rights. The other five were considered “slums” because of their status as permanent indigenous settlements.

The squatter settlements in Kathmandu started in the early 1950s when rural migrants moved into cities looking for employment (Toffin, 2010). There were only 17 squatter settlements in the valley in 1985. By 2000, there were 61 squatter settlements with 2,031 households and 11,851 people which increased to 64 by 2003, increasing the squatter households to 2,134 and population to 14,500 (ibid; Lumanti, 2003 as cited in ADB, 2010). In 2008, Lumanti, a non-governmental organization working for improving housing for informal settlements, identified 45 informal settlements, of which 40 recognized themselves as a squatter. These 40 squatter settlements included 726 people (6,612 male and 6,114 female) living in 2,735 households (Lumanti, 2008). At least 24 of these 40 squatter settlements are located along the five rivers of the valley: Bagmati, Bishnumati, Hanumante, Tukcha, and Dobikhola. The other five settlements recognized themselves as *swabasi* in Nepali, which literally translates to “dwellers staying by themselves” because these residents are not willing to be identified as squatters (ibid).

Table 2: Squatter settlements in Kathmandu Valley

| Nearby River | Squatter settlement |
|------------------|---|
| Bagmati River | Shanti Nagar, Bijaya Nagar, Jagriti Nagar, GairigaunTole, <i>Chadani Tole</i> ,PragatiTole, Kalimati Dole, Bansighat, Kuriyagaun and Shankhamul, <i>PaurakhiBasti</i> |
| Bishnumati River | Squatter settlements- DhikureChouki, Kumaristhan Buddhajyoti Marg, BalajuJagriti Tole, SangamTole, Ranibari Indigenous settlements- Inyatole, Ramghat, Hyumat, Dhaukhel and Bhimmukteshwor |
| Hanumante River | Manohara Bhaktapur, Manohara Bhaktapur-2, Manohara-Bhaktapur-3 (Lokanthali) |
| Dhobikhola | Shanti Binayak, Devi Nagar, Bishal Nagar, Kalopul and Pathivara |
| Tukucha | Narayantole Maharajjung and Khadipakha Maharajgunj |
| Other Location | Palpakot, Anam Nagar, Maijubahal, Kumarigal, Radhakrishna Chowk, Mulpani, Kapan Dhungen, Subigaun,Ramhiti, Mahankal, Sukedhara and Mandikatar |

Source: Adapted from Lumanti, 2008 and Phuyal et al., 2019

According to UN-Habitat (2010), Kathmandu Valley had more than 12,000 squatters in more than 40 settlements. An additional 40 percent of squatters were estimated to be occupying public buildings making the total squatter population number up to nearly 20,000 (Paudel et al., 2014). Toffin (2010) reports 75 squatter settlements have been identified in Kathmandu Valley, out of which 65 are located in Kathmandu Metropolitan City. A survey conducted by two informal settlers' organizations reported 24,021 settlers were living in 46 informal settlements in Kathmandu in 2013 (Dangol and Day, 2017). The number of settlements and their population has further increased. However, there is no updated documentation of their origin, number, location, population, and overall situation and those existing are incomplete and even conflicting (see Table 3). Furthermore, their dynamic nature, through internal and external migration, makes accurate documentation a challenge. It is however clear that accelerating rural-urban migration in seeking for better access to basic facilities and amenities, institutional facilities and a better income and lifestyle have made urban centers enclaves of economic activities which depend on migrated labor.

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While the urban slums and squatter settlements, in economic terms, contribute a significant quantity of the workforce to the urban market and generate income to sustain the urban economy, they also attract more migrants towards the urban economy, as shown by proliferating squatter population.

Table 3: Demographic status of squatter settlement in Kathmandu Valley

| Year | Status/ Number of squatter settlement | Population | No. of households |
|-------------|---------------------------------------|------------|-------------------|
| Early 1950s | Squatter settlement emerged | NA | NA |
| 1985 | 17 | 2,134 | |
| 1988 | 24 | 3,665 | 348 |
| 1992 | 33 | 1,271 | 6,355 |
| 1996 | 47 | 1,783 | 8,927 |
| 1998 | 49 | 2,021 | 10,323 |
| 2000 | 61 | 11,851 | 2,031 |
| 2003 | 64 | 14,500 | 22,134 |
| 2008 | 40 | 12,726 | 2,735 |
| 2010 | 75 (65 in KMC) | NA | NA |
| 2013 | 46 | 24,021 | NA |

(Source: compiled based on Lumanti, 2008; Tanaka, 2009; Toffin, 2010; Dangol and Day, 2017).

As mentioned above, the majority of squatter settlements in the valley are located along the riverbanks or in public lands with limited or no access to basic services. Sengupta (n.d.) marks this is “a need to avoid attracting public attention” in the process of occupying land with dubious or no land titles. The riverbanks are prone to natural hazards such as seasonal flooding and landslides. Squatters pile up sandbags to protect them from the rising level of the river (Dangol and Day, 2017; Nehren et al., 2013). Occupation of dilapidated religious buildings and structures is also rampant, particularly in the Kathmandu Valley. Although squatting in private land is very rare but recently squatters are also squatting on private vacant land. Squatter settlements in non-riparian environments benefit from better living conditions and their houses are of a more solid structure than riparian settlements. Yet in both cases, from a legal point of view, both of these settlements

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are characterized by a lack of essential urban services and fundamental land rights, and “the future of the inhabitants’ tenure is under constant threat” (Toffin, 2010).

Toffin (2010) notes that the living conditions in squatter settlements are poor with houses having corrugated iron sheets and sometimes even plastic tarpaulins held down by stones to cover the roof. The walls are generally made of poor-quality bricks. Among the very poorest dwellers, the walls are made of bamboo and mud and the lanes separating the long rows of shelter are very narrow. But, some of the squatter settlements have house grocery shops or teashops. Most dwelling-places have electricity, sometimes even television, while water supply and sanitation and solid waste management services are extremely shoddy. Water quality assessment in 37 squatters and 5 indigenous communities by Phuyal et al., (2019) showed that 90% of the domestic water usage is contaminated in both biological and chemical way (the health risks are not only posed in the case of drinking water, but also in other domestic usages like washing and bathing), which means the majority of people living in this area are vulnerable to health hazards.

Some squatter settlements are inhabited by permanent residents, with second and even third generations sharing the same shelter (Lumanti, 2008). Some shanties are partly or totally rented to newcomers or fresh immigrants. Majorities of squatter residents are laborers working in factories, restaurants and offices on a daily wage basis. Enlarging and increasing squatter settlements demonstrate a high rate of illegal construction and informal housing development as well as the growing urban poverty in the valley (Toffin, 2010). It is, however, important to be aware that Kathmandu’s squatter settlements are heterogeneous not only in terms of the ethnicity or caste of their residents, age, and population of the settlements or neighborhood facilities but also in terms of their socio-economic and political relations and reasons for squatting (Sengupta, various; Gallagher, 2016; Moffat and Finnis, 2005).

Interestingly, a common process of creating a new *basti* is to move one part of a settlement (in particular those living in a more precarious way, newly arrived relatives and tenants) and establish a new *bastu* some distance from the first one. More often than not, this move is made in a coordinated manner by several families. Such an internal development process contributes to the mushrooming of encroachments, is highly vulnerable to eviction because of insecure residential status, deprived of their right to security of tenure (Toffin, 2010; ADB, 2010). Therefore, the growth of squatter settlements is not just a negative byproduct of urbanization but symbolizes deep

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structural poverty where people lack access to basic services and opportunities and a failure of government to manage urban development and ensure basic human rights through inclusionary policies and protection of the right to adequate housing (Brooks, 2016; Paudel et al., 2014; Toffin, 2010). These authors note that those living in such settlements have less capacity to cope with such adversities and suggest that the disparity is clearly visible when compared to the social and health parameters like education, mortality rates, and morbidity rates. This limitation could keep squatters away from social interaction, cause high-level frustration, increase the risk of social violence and aggravate the already weak urban governance.

Evictions, upgrading and resettlement: “Squatters’ problems” or “squatter the problem”

“*Sukumbasi*”, the Nepali term used to refer to a squatter literally means a person who has no house for shelter, no private land for cultivation and no other opportunities of earning a livelihood (Karki (2002). Tanaka (2009) notes that the term was used in the rural context to denote a person without farmland, who would hence have difficulty supporting a family in this agrarian society. The author stresses that “it is not a self-asserted identity, but an externally imposed and generally pejorative term. This creates a certain amount of confusion in debates within Nepal on the entitlements of squatters, since people who have legal ownership of even a very small piece of land in their place of origin, often co-owned with others and insufficient for survival, are not technically covered by provisions made for squatters” (ibid). Yet, in practice, *sukumbasi*, in the urban context, are the squatters residing in unauthorized space, while they may still own land elsewhere in the country (UN-Habitat, 2010). This explains a generally negative perception of squatter settlements in Kathmandu, as many residents view these inhabitants with “fear, anxiety, suspicion and misconceptions” as “invaders” (Toffin, 2010: 159), “putting immense pressure on the economic and environmental structure of the city” (Sengupta and Sharma, 2006).

These illegal settlers are supposed to be “puppets” of political parties, ready to be summoned at any time to participate in demonstrations and rallies organized by such parties as to the huge demonstrations that succeeded in abolishing the monarchy in 2006 (Toffin, 2010). Additionally, the idea prevails that these people own land in their home districts and are not “genuine *sukumbasi*”, rather helped unjustifiably by local bodies and foreign agencies. Such negative

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impressions of squatters have resulted in the term “*hukumbasi*” which is “someone who pretends to be a *sukumbasi* in order to obtain a land title as well as advantages granted to underprivileged” (ibid: 160). This discourse renders the squatters’ claim to be relocated illegitimate, sharpens suspicion about them as well as distrust and conflicts among squatters (see Toffin, 2010).

The Long-Term Development Plan (LTDP) 2002 envisioned conserving the river in the valley by recognizing the right for river and delineating river land on the basis of 100 years’ return flows. It prohibited squatter settlements along with other river degrading activities such as sand extraction, solid waste dumping, and sewage discharge. The government has made frequent attempts of evictions, either in response to public concerns about increasing encroachment on public land or because of real estate pressure. Tandan (2016) notes twenty-one commissions have been formed to handle encroachment, but none have managed to develop effective housing solutions (cited in Brooks, 2016). More recently, urban squatter settlements have been evicted through resettlement to the periphery of the city (see Lumanti, 2005). The resettlement attempts are ongoing, yet, not all of such plans have succeeded as informal settlers refused to move into such settlements.¹⁰

Following the first workshop on squatters in Nepal organized in 1990, a non-governmental organization, the Lumanti Support Group for Shelter was formed in 1993, which has continued advocating for addressing urban poverty and the right to shelter. The National Plan of Action (NPA) of 1996 was the first housing sector plan in Nepal, prepared for the UN-Habitat II Summit. The NPA proposed that squatter settlements should be upgraded to create a safe environment (Tanaka, 2009). The tenth national plan (2002-2007), the “Poverty Reduction Strategic Paper” of Nepal, also included squatter issues among the prioritized projects and aimed to “prepare plans to systematize the unplanned and squatters’ settlements of the Kathmandu Valley with the coordination of all concerned stakeholders” (NPC, 2002). The 2015 Constitution of Nepal recognizes the issue of squatters in relation to social justice and inclusion and aims to identify landless and squatters, rehabilitate them, and states that it shall be the responsibility of the state to guarantee the provision of social and economic security including the land for those groups who are socially and economically backward. However, the government response to squatters has

¹⁰ <https://kathmandupost.com/national/2019/07/25/the-government-spent-rs230-million-on-buildings-for-squatters-nobody-moved-in>

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remained a mixture of assisting in increasing the quality of life in these areas, occasionally demolishing settlements, and most often neglected these communities (Brooks, 2016).

Nepal is revising its first National Shelter Policy of 1996 and has initiated the *Janata Awas Karyakram* (People's Housing Program) since FY 2009/10. The Department of Urban Development and Building Construction (DUDBC) has also started constructing multistory housing as a part of the resettlement program for the people living in the informal settlement. The program aims to provide planned housing by relocating the informal settlement families living along the river bank as an effort towards the improvement of the unplanned. However, squatters are resisting resettlement, preferring to acquire land ownership to the residential spaces where they currently reside. Instead of depending on the government for basic services, these settlements are acting in their own capacity or under facilitation from non-governmental organizations to improve their standard of living (Ninglekhu, 2012).

The national government has recently adopted numerous international agendas concerning the right to housing. These agendas recognize the importance of housing in building inclusive, safe, resilient and sustainable cities (MoUD, 2016). For example, in response to the UN's Sustainable Development Goals (2016-2030) and the national goal of graduating from least developed country status by 2022, Nepal's National Planning Commission developed a sustainable development agenda in 2015 as a guide for operationalizing the SDGs. Squatter settlements are addressed in SDG Goal 11, which aims to make cities and human settlements inclusive, safe, resilient, and sustainable while undertaking the consequences of rapid urbanization (NPC, 2017). Following Habitat III, the United Nations "Conference on Housing and Sustainable Urban Development," the government prepared an "action-oriented" document called the "New Urban Agenda". This document identifies the key urban issues and provides an action plan for addressing these issues, including mainstreaming DRR in urban planning and development, upgrading informal settlements, and preventing such informal settlements by providing decent jobs, infrastructure, services, and affordable housing to the entire urban population. Actions to address squatter settlements include forming an "Organized Settlement Commission" to manage and upgrade informal settlements, develop planned and systematic settlements and prevent encroachment of government, public, and trust land. In 2017, the government has issued a "Systematic Settlement

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Commission Order” which aims to check encroachment of government, public and trust land while solving squatters’ problems.¹¹

Despite such intervention agendas, implementation has remained vague, calling into question the processes in which resettlement and intervention will occur. The only current plan to address squatters is through a pilot housing project in Ichangu Narayan that is intended to relocate settlements along the Bagmati River. Squatters have resisted relocation to the outskirts of the city. Such conflicting interests impede the government from achieving SDG 11. How the government will translate language in their agendas concerning the right to adequate housing to practice remains unanswered (Brooks, 2016).

Although the squatter population in Nepal is small by international standards, their population and influence on the city’s socio-political landscape are growing along with their claims on urban space, which shows that their strengths and strategies have changed (Sengupta, n.d). Two informal settlements federations, Nepal Basobas Basti Samrakchan Samaj (NBBSS) and Nepal Mahila Ekta Samaj (NMES) were registered in Nepal in 1998 and 2000 respectively, under the initiation of Lumanti (Tanaka, 2009). NBBSS focuses on the rights to shelter and security of tenure issues, while the NMES concentrates on saving and credits, infrastructure, and women rights issues (UN-Habitat, 2010; Tanaka, 2009). Both these federations have grown over the years. NMES is a network organization of landless women residing in forty districts in Nepal.¹²

One of the missions of both NBBSS and NMES is to identify squatters through surveys, and the distribution of family identity cards. The identification of squatters is the highest priority issue both for the squatters themselves and for local authorities, who are often suspicious that those claiming to be squatters actually own land and houses in other places (Tanaka, 2009). For example, KVDA claims “only five percent of those living on the riverside are real landless squatters, others are wealthy fake squatters” and blames Ministry for Land Management, Cooperative and Poverty Alleviation for the “politics in the name of squatters”. The latter argues Ministry of Urban Development has to take the responsibility to find out genuine squatters.¹³ While the government

¹¹<https://thehimalayantimes.com/kathmandu/government-issues-systematic-settlement-commission-order-2017/>

¹² <http://upfi.info/partners/None/nepal-basobas-basti-samrakchan-samaj-nbbss-and-mahila-ekta-samaj/>

¹³ <http://kathmandupost.ekantipur.com.np/news/2019-07-15/riverside-squatters-in-thapathali-spend-sleepless-nights.html>

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is working on a policy to “solve” the squatter-related problems, related literature, although limited, shows that these issues involve socio-economic, institutional and political engagements. Critical attention is needed so that the people most in need of land and housing do not get excluded in these processes.

In 2012, the High-Powered Committee for Integrated Development of the Bagmati Civilization started constructing parks along both sides of the Bagmati River, but the project decelerated because of its inability to relocate squatter settlements from the banks. In 2017, the Committee under the Ministry of Urban Development, along with the KVDA, UN Park Development Committee and other stakeholders announced to find a solution to the squatter problem in Kathmandu and to work on squatter relocation but the effort was not successful.

Governmental interventions to manage squatter settlement

In January 2002, the government published a notice for the clearance of the road construction site. The planned evictions would have been the largest scale in Nepal’s modern history, leaving homeless as many as 10,000 people squatting alongside the banks of the Bagmati River – with no clear plans for their relocation or alternative accommodation. In response to this notice, the affected informal settlers with the support from Lumanti support group (NGO), squatter federations, other NGOs, and civic groups resisted for the demolition plan of the government of their houses without an alternative resettlement plan. The government eventually decided to halt the planned evictions due to pressure from various political parties and collectively lobbying from the above group. This also succeeded to make the “landmark agreement” which stated that the informal settlers identified as “genuine settlers” would be provided with financial support for rental accommodation for three months and thereafter they would be provided with alternative housing (Shrestha et al., 2018). In April 2002, the settlements were demolished. The informal settlers moved to the rental houses in a nearby area. During the process, Lumanti had frequent contacts with the informal settlers to plan for the relocation. Unfortunately, in June 2002, political upheavals in the government system led to the dissolution of all the elected local bodies and the dismissal of the Mayor. This affected the implementation of the “landmark agreement” for the

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relocation. Unfortunately, in June political upheavals in the government system led to the dissolution of all the elected local bodies and the dismissal of the Mayor. This affected the implementation of the “landmark agreement”. Lumanti worked with the Department of Urban Development and Building Construction (DUDBC) in Nepal over the last few years on plans to safely rehouse the riverbank families. DUDBC had even purchased land for the relocation project and Lumanti organized various meetings with the communities and government and had begun working with the families to create house designs.

In 2012, the government demolished 251 huts of landless squatters on the Bagmati banks in Thapathali, mobilizing more than 2,000 security personnel. Only 46 families received Rs 25,000 to relocate themselves. The eviction resulted in a violent clash between the settlement’s residents and police as residents attempted to resist the eviction. The government action was widely condemned by rights bodies and civil society organizations, including Human Rights Watch, who had previously written to the government, expressing concern over the planned evictions. Following the backlash, Prime Minister visited the families a week after the demolitions, offered them cash immediate relief, and promised to arrange alternative housing for them, which began the Ichangu Narayan Housing Project for Squatters and the Urban Poor. Between 2010 and 2012, the Department of Urban Development and Building Construction purchased over eight *ropanis* of land from the Ichangu Narayan Land Pooling Committee. Construction began in July 2012 and was completed in September 2014. It includes 227 housing units, across two locations in Ichangu Narayan. However, except with a ward office and temporary police unit on the ground floor, it remains deserted as the squatters evicted from Thapathali refused to move to these buildings. Each housing unit in Ichangu Narayan around 200 square feet in size and was priced at Rs1.2 million, to be sold to squatters at low-interest loans or to charge them rent. Squatters claimed high prices, distance from the city center where a majority of the work, and no public transportation or schools for their children as the main reason for the refusal (see footnote 5, 8, also Brooks, 2016).¹⁴

¹⁴ <https://kathmandupost.com/national/2019/07/25/the-government-spent-rs230-million-on-buildings-for-squatters-nobody-moved-in>

Study Site 1: Manohara Squatter Settlement

Manohara squatter settlement is situated on an open field at the bank of the Manohara River, close to the Tribhuvan International Airport, and is known as “*Paurakhi Gaun*” (Nehren et al., 2013). The settlement appeared in early 2000s as a consequence of the Maoist insurgency in the country when a large population wave migrated to the capital city in the search of security and economic stability (ibid). A review of studies undertaken in this informal settlement shows that all buildings in the settlement are one-storeyed, with some exceptions. The housing structures are temporary, semi-permanent, or permanent, which indicates the existence of socio-economic variability within the squatter community.

K.C and Paharai (2010) report Manohara River line shifted from the year 1967 till 2009, which created vacant land. Squatter settlement on this land started in 2001 with a total of 11 households having an estimated population of 77. This settlement expanded after 2005 in the agricultural land and grew to 552 in 2007. With 2422 people in 589 households in 2008, Manohara was the largest squatter settlement in Kathmandu Valley (Lumanti, 2008). Majority of the residents in Manohara settlement were migrants from Khotang, Kavrepalanchok, Sindhupalchowk and Dolakha districts. Similarly, they were mostly from *Janajati* communities (ibid). It is interesting to know that the 1967 river line that had shifted away from its original course is shifting back towards the squatter settlements that are lying in the same river channel of 1967 (K.C and Paharai, 2010). This implies that the settlements lying in the flood plain are prone to flood hazards risking the lives and property in tomorrow’s city.

A recent water quality assessment study by Phuyal et al., (2019) documents three squatter settlement along the Manohara River: Manohara Bhaktapur (107 HH), Manohara Bhaktapur -2 (PragatiMarg) (575HH) and Manohara Bhaktapur -3 (Lokanthali) (45 HH) with a total of 725 households. According to Nehren et al., (2013), the Manohara squatter settlement covers 37,900 sq. m of public land, and has 750 houses with a total of around 5000 people. Nearly all population residing in this settlement do not wish and plan to go back to their original home. The primary reason behind their unwillingness to return home is that they are living here for free and have had better income generating opportunities in the city compared to their rural homes (see Mahaseth, 2017).

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According to Mahaseth (2017), around mid-2000s, many of the residents filled the forms, agreed to come together as one group and work together to lay claim. However this study remains silent about the process and purpose underlying these forms and related practices to organize and occupy the land. The occupants were initially thrown out of the settlement, and many of them were also thrown into jail, but they had a strong political backing of the Maoists. Determined to access the land, they keep going back to “their” land, supporting each other through this phase, kept voicing their claim to the land in the form of rallies and protests that the Maoists helped organize. They realized that they would not be secure of their tenure for a long time and the initial years would be spent in fear of eviction. Although, many settlers who could afford to, have managed to build semi-permanent housing as opposed to the initial temporary shelters, yet uncertainty about the housing security is widespread (ibid).

Over the years, insecurity over land tenure has seemingly decreased leading to residents attempting to improve their housing conditions. Yet insecurity prevails and most residents are afraid to improve their housing or add infrastructure as they may be evicted, so do not want to waste their limited finances on unpredictable circumstances (ibid). The residents have temporary or semi-permanent housing which is prone to damage on regular basis, especially during floods in the monsoons. Many do not even have a toilet or a water hand-pump for daily use.



Figure 1: Permanent, a shop, electricity wires, muddy road and temporary houses in Manohara squatter settlement (Source: Mahaseth, 2017).

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Water supply and sanitation situation are poor compelling dwellers to use polluted water of the Manohara River for washing clothes, utensils, domestic animals, and for religious and other purposes (Nehren et al., 2013). Study by Paudel et al., (2014) reports that the squatters have only one source of drinking water i.e. stone spout but water quality is poor because of high concentration of Nitrate and Coliform. Almost all households have their own toilets in which half of the toilets are made of concrete and household wastes are disposed directly into the river as the municipality never collects wastes from these settlements. Mahaseth (2017) reports that some residents have private water hand-pumps and some buy drinking water while majority of others use the public water tap at a distance. A study by Lama (2011) in Pragatinagar, a squatter settlement along Manohara, found high concentration of coliform bacteria in each of water sources and over half of the households suffered from water borne diseases. People, however, ignore these and are more interested in making expenses on luxury goods like television, computer, vehicles, and other basic services, which, they believed would be made available to them by various donors (ibid). Mahaseth (2017) notes most residents only have primary education and no livelihood security. Nonetheless, she also notes women have started forming saving and credit groups, some are running a shop and a restaurant, and some households had members working and studying abroad.

Among the squatters, Manohara settlement is a preferred settlement as it is considered to have better services (Paudel et al., 2014). Interestingly, Mahaseth (2017) findings show some people are renting houses to live in this settlement. According to Paudel et al., (2014) many NGOs, INGOs and Christian organizations like DIAL community are working to provide basic services like health, education and drinking water to the dwellers, and also informally encouraging them to be Christians.

Manohara squatter settlement has expanded towards the land away from the riverside. Protection against flooding has been adopted through the elevation of the river bank with the help of sandbags. Yet, Manohara settlement witnesses one flooding every monsoon season, causing loss of properties, domestic animals and cultivated land. Similarly, the risk of water and vector-borne diseases is high. The settlers of this settlement, according to Nehren et al., (2013), were more worried about traffic hazards and thefts than natural disasters.

Study site 2: Dhulikhel Municipality

Dhulikhel Municipality, which belong to Kavrepalanchok District, is located in Province 3 of Central Nepal. It is situated 30 km southeast of Kathmandu and 74 km southwest of Kodari (bordering Tibet). Two major highways, B. P. Highway and Araniko Highway, pass through Dhulikhel. Araniko Highway connects Kathmandu with Tibet. Dhulikhel has been an important trading center on the commercial route linking Nepal to Tibet for centuries. With an area of 54.62 sq. km, Dhulikhel Municipality lies at an altitude of 1550 m (5,085.3 ft) (GOEC-GIDA-Next JV, 2019). It is a typical Newari town with adjoining Tamang villages. It hosts the Dhulikhel Hospital and Kathmandu University. Dhulikhel Municipality was established in 1987 by merging the surrounding villages Vajrayogini, Shrikhandapur and some part of Kavre, which increased the population to 10,000 as required to be declared a municipality (Devkota and Neupane, 2018). The reason behind converting the village into a municipality was to qualify for the drinking water project supported by the German Government (GTZ). This project was targeted to supply water to the former Dhulikhel village, which was later made ward number 2, 3, 4 and 5 of the municipality (ibid), while excluding other wards. Inequalities in the water distribution resulted into disputes and negotiations between the users and non-users of this system, which ultimately succeeded in distributing water to the other wards (ibid).

In 2017, the municipality was expanded to include parts of neighboring six village development committees (VDCs) (Sankhupatichaur, Patlekhet, Sardabatase, Nityachandeswori, Rabiwopi, Devitar) and since it comprises of 12 wards.¹⁵ Prior to amalgamation, Dhulikhel Municipality was predominately urban while the wards added to Dhulikhel are more rural in character with a more isolated settlement. Connections to these settlements is an issue.

According to the Population Census 2011, the total population of Dhulikhel municipality is 32,162 and has 7,061 households, showing an annual population growth rate of 1.16 % (ibid; Walark, 2016; see footnote 14). The population of the entire Municipality (taking into account the new wards added in 2017) was 28,826 in 2001, which grew to 32,162 in 2011), representing an annual population growth rate of 1.16 %. Between 2001 and 2011, the population density increased from

¹⁵ <https://dhulikhelmun.gov.np/en>

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528 per sq. km to 582 per sq. km. However, there is great variation in population growth rate of the old wards which is 4.57 % compared to that of whole municipality (1.16 %) with newly added wards (GOEC-GIDA-Next JV, 2019).

The population of the municipality is expected to reach around 40,560 in 2031 with an annual growth rate of 1.16% (ibid) While the population growth is likely to be intense in the urban areas of the municipality, in the rural areas, the population is also expected to reduce due to out-migration to urban areas for employment or due to resettlement from hazard prone areas. Tourism is a major economic activity in Dhulikhel. Construction of the proposed railway line from (Nagdhunga of) Kathmandu to Dhulikhel could accelerate the economic activities of Dhulikhel.¹⁶

According to GOEC-GIDA-Next JV (2019) most of the area on the northern part of the municipality is covered by forest whereas high agriculturally productive land is located in southern part. Some land is covered by steep terrain. Further the study reports, Dhulikhel Municipality is affected by land erosion, river cutting and landslides. According to this study, wards 1, 6, 10, 11 and 12 have the problem of land erosion while wards 1 and 10 experience problems with river cutting. Air pollution is high in ward 1 due to brick industry. Although multiple open spaces are available across Dhulikhel Municipality, the Municipality does not yet have a Disaster Management Center.

Although the GTZ supported drinking water supply project has been functioning since its initiation in the 1990s, water supply has been insufficient to meet the water demands growing with rapid urbanization in town and increasing population. In addition, addition water-related contestations continue between the up and downstream communities despite several negotiations and agreements to compensate the upstream community by the downstream against the water use. The water management challenge is also linked to expansion of the city with regard to increasing number of hotels due to boost in tourism businesses, expansion activities of Kathmandu University and Dhulikhel Community Hospital and water intensive small businesses such as party venues and poultry farms. The gradually decreasing volume of water in the existing sources, which is also affected by variable rainfall regime, has further exacerbated the problem (Devkota et al., 2018).

¹⁶ <https://english.onlinekhabar.com/investment-board-to-prepare-dpr-for-naadhunga-dhulikhel-metro-rail.html>

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Some useful links (see also footnotes).

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