Understanding the tipping point of urban conflict:
violence, cities and poverty reduction in the developing world

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Understanding the tipping point of urban conflict: the case of Patna, India

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violence, cities and poverty reduction in the developing world

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Acronyms

BJP	- *Bharatiya Janata* Party
FC	- Forward Castes
DFID	- UK Department for International Development
ESRC	- UK Economic and Social Research Council
IAY	- *Indira Awas Yojna* (Housing scheme)
INR	- Indian National Rupee
IPL	- Indian Penal Code
SLL	- Special and Local Laws
JNNURM	- Jawaharlal Nehru National Urban Renewal Mission
JD	- *Janata Dal*
JD(U)	- *Janata Dal* (United)
NIUA	- National Institute of Urban Affairs`
NCRB	- National Crime Records Bureau
OBC	- Other Backward Classes
NSD	- National Slum Development
PRDA	- Patna Regional Development Area
PUAA	- Patna Urban Agglomeration Area
PMC	- Patna Municipal Corporation
RJD	- *Rashtriya Janata Dal*
SC	- Scheduled Caste
SDP	- State Domestic Product
SJSRY	- *Swarna Jayanti Sahari Rozgar Yojna* (Urban development scheme)
WPR	- Work Participation Rate

Tipping Points are a reaffirmation of the potential for change and the power of intelligent action. Look at the world around you. It may seem like an immovable, implacable place. It is not. With the slightest push – in just the right place – it can be tipped.

- Malcom Gladwell (2000: 259).

Any change, even a change for the better, is always accompanied by drawbacks...

- Arnold Bennett (1867-1931)

1.0 Introduction

This report synthesizes the results of research into the dynamics of urban violence in Patna, the capital of the Indian state of Bihar. It contributes to a broader comparative research project on "Understanding the Tipping Point of Urban Conflict: Violence, Cities, and Poverty Reduction in the Developing World", funded by a grant from the ESRC/DFID Joint Scheme for Research on International Development, and based at the University of Manchester, UK. The "Urban Tipping Point" (UTP) project is made up of four city case studies across Africa, Asia, and Latin America: Nairobi in Kenya, Dili in Timor Leste, Patna in India, and Santiago in Chile. These cities were chosen partly because the broader existing literature on urban violence suggests that it is a phenomenon that can be linked to the presence of certain specific factors in cities. In particular, high levels of persistent urban poverty, youth bulges, political exclusion, and gender-based insecurity have all been widely put forward as such factors in recent years, and the four cities chosen for the UTP study are each paradigmatically associated with one of these factors – Nairobi with political exclusion, Dili with youth bulges, Patna with poverty, and Santiago with gender-based insecurity. At the same time, the four cities were also chosen because their levels of violence vary significantly, with Nairobi and Dili displaying high levels of violence, Santiago reporting high levels of violence against women within the context of generally low levels of violence, while Patna is reputed to have witnessed a significant decline in violence. This mix of fully and partially positive and negative cases was deemed ideal to explore the multiple ways in which a given factor might or might not lead to violence.

In order to draw comparative insights from the study of these four disparate contexts, the UTP project approaches them on basis of a common theoretical framework. In particular, the different case studies all take as their starting point the notion that cities are inherently conflictual spaces, in that they concentrate large numbers of diverse people with incongruent interests within contained spaces. This conflict is more often than not managed and/or resolved in a generally peaceful manner through diverse social, cultural and political mechanisms, but sometimes – for example, in the presence of high levels of political exclusion, poverty, gender-based insecurity or youth bulges – these mechanisms cannot cope, and a range of different forms of violence can come to the fore. Violence from this perspective is therefore the actualisation of conflict through the forcible imposition by an individual or group of their own interests to the disfavour or exclusion of other individuals or groups' interests. Understanding the causal mechanisms through which the conflict inherent to everyday urban living can become violent is the key issue that is at the heart of the UTP project, with this potential transition from conflict to violence conceptualised across the four case studies in terms of the notion of a "tipping point". Of particular concern to the research is the potential interrelation between different forms of violence, and whether these connect together to constitute "violence chains".

This report comprises four sections. The first provides a brief overview of the general UTP conceptual framework, establishing the basic research premises and explaining how Patna fits as a case study within the broader project. The second section is a "city profile" offering basic background information concerning Patna's historical, spatial, demographic, social, economic, and political dynamics. It also offers an overview of the city's violence trends, focusing specifically on crime, and drawing on media reports as well as official government and Patna Police statistics. The third section details the results of local-level mixed qualitative and quantitative primary research carried out in four different slums in Patna between April and July 2011. It begins by laying out the logic of case study selection within the city, as well as the general methodological approach adopted. Background

information on the four research sites selected is then provided, followed by a general consideration of key trends concerning the dynamics of conflict and violence in Patna. The research was conducted by a joint University of Manchester-Institute for Human Development team made up of Dennis Rodgers, Shivani Satija, Balendushekhar Mangalmurty, Sagarika Chowdhary, and Alakh Sharma. A final section offers some general conclusions.

2.0 Conceptual Framework

Cities are inherently conflictual spaces, in that they concentrate large numbers of diverse people with incongruent interests within contained spaces (Wirth, 1938). This conflict is more often than not managed and/or resolved in a generally peaceful manner through a range of social, cultural and political mechanisms, but can sometimes lead to a range of different forms of violence when such mechanisms cannot cope. In the context of the UTP project, "conflict" therefore refers to situations where individuals and groups have incongruent interests that are contradictory and potentially mutually exclusive but contained, while "violence" refers to the actualisation of conflict through the forcible imposition by an individual or group of their own interests to the disfavour or exclusion of other individuals or groups' interests. Although not necessarily approaching the issue through this dichotomous lens, the broader literature on urban violence suggests that it is a phenomenon that can be linked to the presence of certain specific factors, or combination of factors in cities. In particular, rapid urban growth, high levels of persistent poverty and inequality in cities, youth bulges, political exclusion, and gender-based insecurity have all been widely discussed as such potential factors in recent years (see Beall and Fox, 2009).

Although there have been (varyingly successful) attempts to statistically correlate these factors with urban violence, little work has been done in terms of trying to understand the causal mechanisms through which they cause the conflict inherent to everyday urban living to become violence. The UTP project proposes that this potential transition from conflict to violence is best conceptualised in terms of a "tipping point". The origins of this idea go back to the 1950s; at its most basic, it posits that certain types of social phenomena can move from being relatively rare occurrences to very common ones in a rapid and exponential manner. The classic example is Morton Grodzins' (1958) sociological study of the "white flight" from American suburban neighbourhoods due to non-whites moving in, which has been shown to only occur after the non-white proportion of the neighbourhood population crosses a certain threshold (see also Schelling, 1972). Grodzins' ideas rapidly became very influential beyond sociology, and the concept of the tipping point was taken up within epidemiology, for example, where it is used to refer to the phenomenon of "cumulative adversity" (Hatch, 2005), which occurs when certain social facts – e.g. disease, risk factors – add up until the weight of their combined impact causes an endemic reaction.

Grodzins and the epidemiological approach to tipping points exemplify a quantitative conception of the phenomenon, whereby it is viewed very much in terms of reaching a critical mass. Other disciplines have adopted a more qualitative approach. Within climatology, for example, the notion of a "tipping point" is used to describe sudden systemic changes within weather systems, which can come about as a result of specific combination of factors – e.g. a concurrent drop in temperature, humidity, and pressure – occurring together in a way that fundamentally alters a given situation (Lenton *et al.*, 2008). Urban scholar Janet Abu-Lughod (1999: 196) has also discussed how tipping points can be precipitated by "paradigmatic events" that change the rules of the game in what may be likened to a Kuhnian shift. For example, she contends that the 1943 Harlem race riots fundamentally changed the nature of race rioting in urban America, fostering their transformation "from the communal to the commodity type of riot", a situation that reached its apogee with the nationally-oriented Watts, Newark, and Detroit race riots of the late 1960s.

Most recently, Malcolm Gladwell (2000), uses the notion of the tipping point to explain the spread of specific fashion trends or the popularity of certain TV shows, among others things. He defines a tipping point as the moment a given social

process becomes generalised rather than specific, but in a rapid rather than gradual manner – "the possibility of sudden change is at the center of the idea of the Tipping Point" (Gladwell, 2000: 12). Gladwell suggests that there are three key qualitative factors that determine whether a tipping point is reached or not. The first is the type of social actor involved, arguing that there are three different particular types of influential social actors that determine whether a tipping point is reached:

> (1) *Connectors* – individuals who are socially positioned in a way that connects them with lots of other social actors;
> (2) *Mavens* – experts/knowledge brokers whose opinion is considered relevant;
> (3) *Salesmen* – charismatic leader types who are listened to.

Essentially, *salesmen* relay the opinion of *mavens* to *connectors* who then disseminate it. Gladwell also suggests that the "stickiness" of an idea or act – its unique qualities that determine the extent to which it has a long-term influence on individuals and communities – is also important. If a phenomenon is ethereal or temporary, it is unlikely to lead to a tipping point. Finally, he contends that the issue of context is critical to whether or not the particular act or idea "fits" within the broader social, cultural, and historical trajectory of a society. Although new ideas are constantly being generated, they have to be able to connect to dominant understandings within society to be adopted.

Building on these different understandings of tipping points, the UTP project seeks to understanding the individual, contextual, and process-linked factors that lead to certain forms of conflicts in cities reaching "tipping points" and spilling over into urban violence. While recognising the importance of the general quantitative accumulation of a particular factor – e.g. levels of poverty – conventionally associated with explaining how a tipping point is reached, it also aims to consider more qualitative factors such as general systemic transformations (including especially those that lead to changing distributional trends of particular factors), the occurrence of paradigmatic events, the evolution of perceptions (for example due to particular media reporting), as well as the existence of particular networks of social agents as possible causal factors that can all lead to a tipping point being reached. At the same time, the UTP project is also particularly concerned with the temporal dimension of the notion of a tipping point, recognising that it is not a static concept, but an inherently dynamic one, and can apply to both increases as well as reductions in violence. It aims to holistically apprehend whether specific forms of conflict are more or less likely to lead to violence, what types of violence emerge as a result of the presence of particular conflicts, and under what conditions this occurs, both locally and more structurally.

One way that the UTP project aims to achieve the latter insight is by exploring how different forms of violence that are generated by tipping points processes interact with each other and can form "violence chains", or in other words have a knock-on effect. The notion of a "violence chain" is inspired by the concept of a commodity chain (see Gereffi and Korzeniewicz, 1994), and is used to highlight the way that violence operates systemically, and involves a range of interconnected processes, that may not necessarily be immediately obvious. A violence chain involves three levels of analysis: the components of the chain (different types of violence), the way these articulate together (processes), and the way they are embedded within a broader institutional setting (context). Articulated together with a "tipping point" perspective, it is expected that the idea of "violence chains" will generated new and original insights into the dynamics of

urban conflict and violence, from which a range of innovative policy recommendations may be generated.

2.1 Patna as a case study

Patna was chosen as a case study city for the UTP project due to its dual association with poverty and urban violence. The city has long ranked amongst the poorest Tier II urban settlements (i.e. between 1-5 million inhabitants) in India, and is located within a state that has historically systematically displayed the lowest per capital income levels in India (Government of Bihar, 2011). Bihar is furthermore well known for its high levels of violence – which take on a variety of forms, from Maoist (Naxalite) insurgency to *dacoity* (banditry) to communal and caste violence, to the extent that Bihar is currently reported to be the second most violent state in India in terms of murders[1] – and Patna is widely acknowledged to have a notorious reputation for being a violent city (Nambisan, 2000). At the same time, Patna's reputation as an insecure city only goes back to the beginning of the 1990s. The accession to power of the populist politician Laloo Prasad Yadav in 1990 is widely perceived as having led to a breakdown of law and order in the city, due to the implementation of *goonda* (strongman) politics, the fostering of caste polarisation, as well as economic mismanagement including generalised corruption. Certainly, by the mid-1990s, Patna was frequently referred to as the "crime capital" of India, notorious for its high rates of murder and kidnapping. Laloo's ousting by the reformer politician Nitish Kumar in 2005 is universally seen as having constituted a critical turning point, however, setting in motion what is sometimes referred to as the "Bihar miracle", whereby the conflict and violence have been significantly reduced, and the state has engaged on a well-managed developmental route associated with economic growth, prosperity, and infrastructural improvement. Particularly symbolic of this transformation is the fact that Patna is now generally considered a peaceful and secure city, in sharp contrast to previously.[2]

To this extent, within the broader context of the UTP project, and its general objective of explore the factors and processes that lead to everyday forms of conflict in cities tipping into overt, chronic, and generalised violence, Patna constitutes something of a "counterfactual" case study. Contrarily to the three other city case studies, where there are clearly identifiable episodes of conflict

[1] See http://archive.oneworld.net/article/view/91983.

[2] For the purposes of this case study, "violence" is primarily being equated with crime, which in India is generally treated as a technical and measurable category. The Indian Criminal Procedure Code distinguishes between two categories of crime: "cognizable" and "non-cognizable". The former implies that immediate police action can be taken without permission from a magistrate or legal warrant, and is a category that is further divided into crimes falling under the "Indian Penal Code" (IPL) and "Special and Local Laws" (SLL). IPL crimes tend to include crimes against persons (e.g. murder, attempted murder, kidnapping, rape, caste discrimination), and while SLL tend to be crimes against property, public order, possession of arms and explosives, as well as crimes relating to narcotics, gambling, etc. Non-cognizable crimes are those that need a warrant and permission from a magistrate in order to be pursued. At the same time, however, it should be noted that while attempts to categorise violence – not just into "crimes" but also more generally into economic, political, social, structural, direct, symbolic or cultural violence, for example – are frequent, as Bourgois (2004) has pointed out, it may be more useful to look at these forms of violence as operating along a "continuum". Not only is violence often talked about generically in practice, but perceptions of violence also differ significantly according to one's standpoint, as Tilly (2003) has pointed out with regard to the issue of legitimacy. It is also often in the linkages between different forms of violence that a proper appreciation of the phenomenon's general underlying causes can be attained. To this extent, this case study does not seek to precisely categorise the different forms of violence that it reports on.

spilling into violence, its dynamics reveal what might be denominated a “reversal” of a tipping point from conflict to violence. This obviously has significant normative import. In particular, understanding how a situation of extraordinary, chronic, or generalised urban violence can return to one of generally contained and managed conflict is clearly of critical importance from a policy perspective, and the Patna case study seeks to understand both the factors that lead to current conflicts becoming violent as well as the factors and processes that caused urban violence to decline in the city. As such, it aims to provide an alternative perspective on the central UTP project research premise concerning the linkages between conflict and violence in cities. Certainly, as Richard Lebow (2010: 5) has pointed out, counterfactuals are useful to demonstrate “the contingency of assumptions that underpin particular theoretical constructs”, and facilitate “imaginative leaps in theory and hypothesis formation”.

3.0 Patna City Profile

This section provides basic background information concerning Patna's historical, spatial, demographic, social, economic, and political dynamics. It also offers an overview of the city's violence trends, drawing on media reports as well as official government and Patna Police statistics concerning crime in the city.

3.1 History

The history of Patna goes back well over two millennia. The city was the seat of government for a series of successive kingdoms that dominated North-eastern India – and sometimes beyond – between the 6th century BC and the 4th century AD, and remained a regionally important centre subsequently. Patna was originally known as "Pataliputra", and its renown was such that it is mentioned by the Greek historian Megasthenes in his writings during the 4th century BC (Gupta, 1998). The city was built due to its location presenting certain key strategic advantages. It is a riverine settlement, surrounded by the Ganges to the North, the Punpun to the south, and the Son to the east, with a fourth river, the Gandak, just a little to the North of the city. This particular geography gave Pataliputra an undeniable edge over rival cities, both in terms of being an easily defensible site, but also by virtue of being able to control trade, which at the time mainly operated along river waterways.

Pataliputra grew rapidly during the next few centuries, and rapidly became a centre for scholarship and religion. The world's first university was founded in nearby Nalanda, while the Buddha achieved enlightenment in Bodhgaya, also not far away. The rulers of Pataliputra – including the famous Emperor Ashoka – actively extended their patronage to Buddhism, as well as to Jainism, another major world religion which also emerged locally around the same time. Indeed, the city's association with religion has persisted through the ages. Guru Gobind Singh, the 10th Guru of the Sikhs, was born in Patna in 1666 AD, and the city was also the founding place of an important Sufi sect, the Firdausi. Indeed, Patna today remains the gateway to major international religious centres, and is a stop on numerous pilgrimages.

Although Pataliputra lost its capital status during the reign of the Guptas in the 4th century AD, the city nevertheless remained as an important cultural and economic centre. During the early medieval period, however, Pataliputra began to lose its pre-eminence as economic and political power moved to the Northwest of the subcontinent with the invasion of the Turks and the Mughals from the 11th century onwards. Because of its strategic location, Delhi became the new political centre of India, but Pataliputra remained an important provincial capital. The name Pataliputra was changed to Patna by a 16th century governor called Sher Shah Suri, although later, during the governorship of Azimusshan, the son of the Mughal emperor Aurangzeb, the name of Patna was changed to Azimabad. Following the decline of the Mughals, the city passed into the control of the Nawabs of Bengal, and became known as Patna once again.

During the 17th century, Patna became an important trade centre. The Portuguese, Dutch, French, English, and the Danes all came to Patna due to the city's position along major river waterways, and it became a major depot centre for calicos (cotton cloths), dye and food grains, as well as saltpetre, something which became increasingly important due to its importance for the manufacture of gunpowder. The British trader Peter Mundy, writing in 1632, called Patna "the greatest mart of the Eastern region".[3] Patna fell into the hands of the East India

[3] See http://www.brandbihar.com.

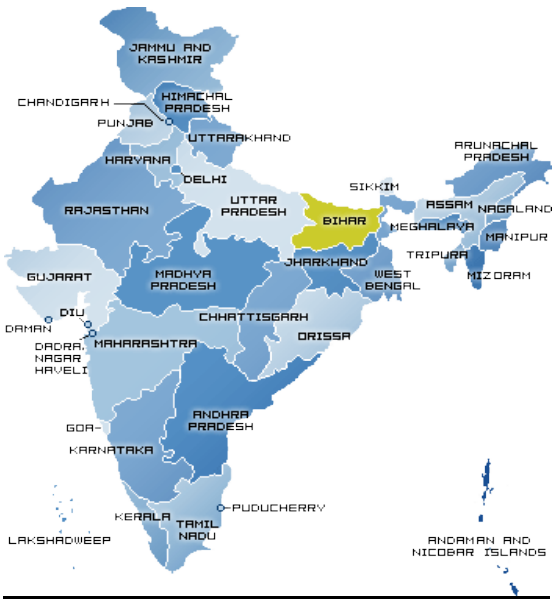
Company following the battle of Buxar in 1765, which marks the beginning of the British colonial period in Bihar. Patna remained an important regional trading centre, as well as a gateway to Calcutta – present day Kolkata – from the Northwest, and became the capital of Bihar Province following the division of Bengal Province in 1911.

Patna played a major role in the Indian independence struggle, and was notably associated with Mahatma Gandhi's non-violent Champaran movement and the 1942 Quit India Movement. Many noted freedom fighters also originated from Patna, including the first President of the Constituent Assembly of India, Dr. Sachidanand Sinha, Swami Sahajanand Saraswati, Jai Prakash Narayan, Yogendra Shukla, Bihar Bibuti Anugrah Narayan Sinha, and Sri Krishna Singh, among others. Since India's independence in 1947, Patna has served as the state capital of Bihar. It remains the most important city in the state, whether politically or economically, although a number of medium-sized urban settlements have also emerged over the past three decades, including especially regional intermediate market towns. At the same time, however, it should be noted that Bihar remains an overwhelmingly agricultural state, even if there has been some modest industrial and service sector development in recent years (Government of Bihar, 2011).[4]

3.2 Geography

The state of Bihar is situated in North-eastern India (see figure 1). It is 94,163 square kilometres in size, and borders Nepal to the North, the Indian state of Uttar Pradesh to the West, West Bengal to the East, and Jharkhand to the South.

Figure 1: Bihar



Source: http://a7ki.net/wp-admin/bihar-map-india&page=6.

[4] Historically Bihar also had a significant mining sector, but this was mainly located in the South of the state, which was constituted as the separate indigenous state of Jharkhand in 2000.

Most of Bihar's territory is alluvial floodplain, with some pre-Himalayan foothills to the North, and the beginnings of highlands to the South. Bihar is one of the most rural states in India; just 10.5 percent of its population lived in urban areas in 2001 (India Urban Poverty Report, 2009: 96). Patna, the capital of Bihar, is located 53 metres above sea level, latitude 25º35'40" North, longitude 85º08'38" East (see figure 2). The city is situated in a high risk earthquake zone, as well as a flood risk zone, particularly with regard to the Punpun and Ganges rivers. Embankments have been built along the former to control flooding, but during the monsoon, spill over from the Ganges frequently floods large parts of the city.

Figure 2: Patna and Bihar

Source: http://www.devinfo.org/news_content/news_001_29.html.

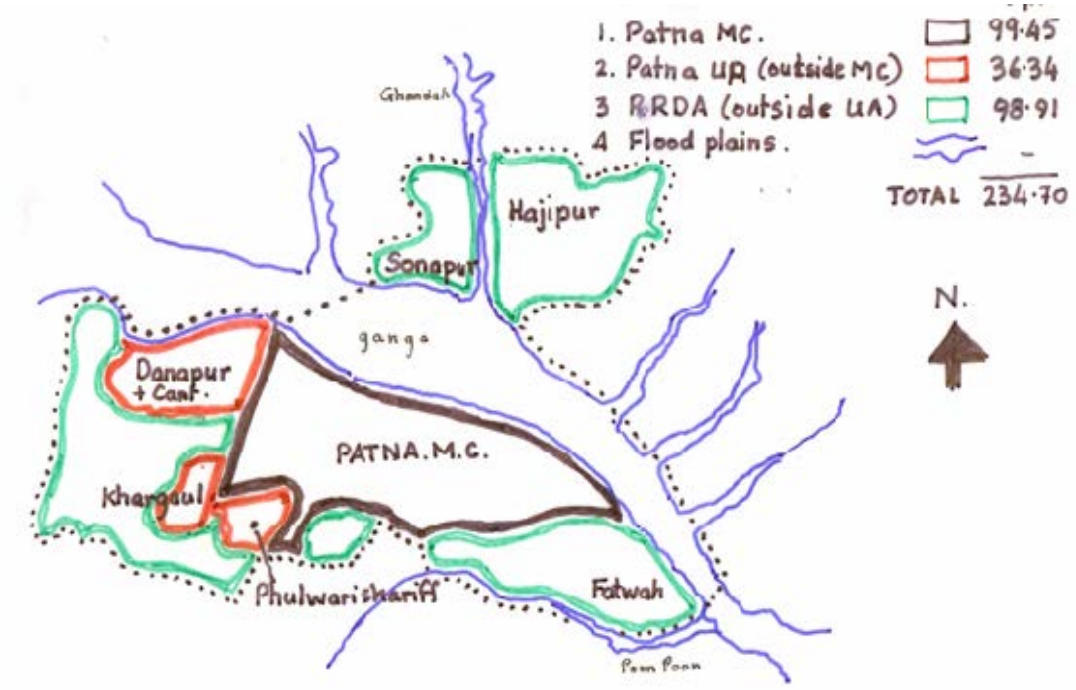
There exist several different administrative units relating to the city, including the Patna Regional Development Authority (PRDA), Patna District, the Patna Urban Agglomeration Area (PUAA), and the Patna Municipal Corporation (PMC). The PRDA is approximately 235 square kilometres in area and comprises three districts of Bihar: Patna, Saran, and Vaishali (see figure 3).

Figure 3: The PRDA

Source: Government of Bihar (2006: 6)

Patna District includes the PUAA, and Fatwah Nagar and Maner Nagar areas, both of which are agricultural. The PUAA comprises of the PMC area, and its outgrowths of Patliputra Housing Colony, Digha-Mainpura, Sabazpura, Khalilpura and Badalpura, Phulwarisharif, Danapur Nizamut, Danpur Cantonment Area, Khagaul, and Saidpura. The PUAA covers some 136 square kilometres of land, of which the PMC corresponds to 99 square kilometres (see Figure 4). For the purposes of this City Profile, Patna will be considered the area of the PUAA, and wherever possible, statistics will correspond to this area.[5]

Figure 4: The PUAA and PMC

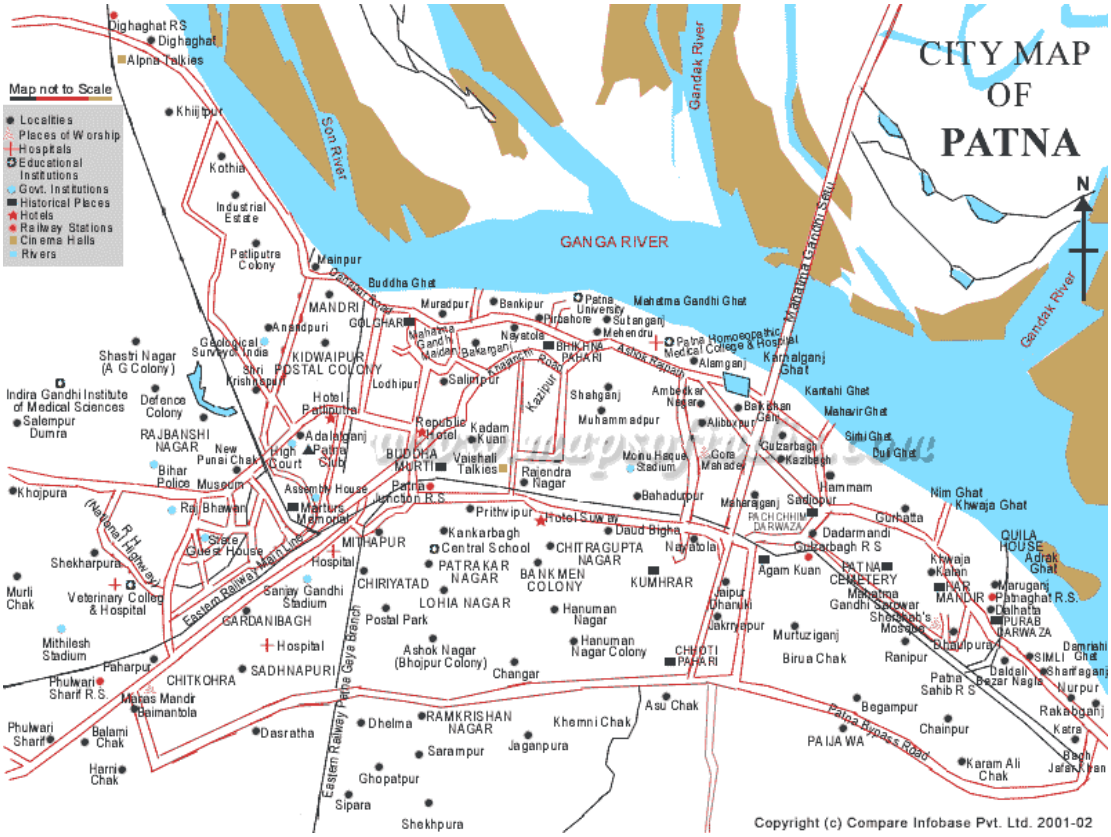


Source: Government of Bihar (2006: 9)

Patna is surrounded on all sides by rivers, which has clearly constrained its growth. It is a linear city which has grown on either sides of the main road (Ashok Raj Path) running east to west on a ridge, almost parallel to the bank of the Ganges river. The length of the city is 24 kilometres. Prior to the new Bypass road being built, the city was 2.5 kilometres in breadth on average. Patna's urban development was more or less unplanned until the beginning of the 20th century. During British colonial rule, monumental edifices such as the Patna Museum or the High Court were built to the West of the old historic city, in an area known as the New Capital Area. This was further developed following Patna's devastation by an earthquake in 1934 (Gupta, 1998: 9-18). Patna is thus divided into three areas – an eastern old city (Patna City), a central area extending from Mahendru to Patnagaya Road, and the western New Capital Area (see Figure 5).

[5] Due to the inevitably patchy nature of the available data, occasionally some of the statistics used in this report will refer to Patna District or the PMC. These will be noted as such, however.

Figure 5: City Map of Patna



Source: http://www.mapsofindia.com/maps/bihar/patna-city-map.htm.

Although following India's independence legislation was enacted in the form of the Bihar Town Planning and Improvement Trust Act in 1951, and a Master Plan was drawn up to guide Patna's urban development, this was little more than a broad brush land use exercise, and the city's urban growth continued in an organic fashion. By the late 1970s, "the city and its suburbs were facing urgent problems related to traffic and transportation, housing, drainage, water supply etc. due to population growth, putting pressures on all walks of life." (Government of Bihar, 2006: 11).

The Patna Regional Development Authority was set up in 1975, and the Bihar Regional Development Authorities Act was enacted in 1982, which provided for the preparation of a new Master Plan. This was prepared in 1986, and "was only partially successful… due to both financial and legal constraints. The rapid population growth, inadequate infrastructure for controlling development and paucity of funds led to unplanned organic growth, the zoning and sub division regulations were rarely applied and growth seemed to emerge despite the plan" (Government of Bihar, 2006: 11). A new "Master Plan 2021" is currently being prepared, which will concentrate on the "augmentation of Patna's infrastructure in terms of Sewerage, Drainage, Water Supply and Solid Waste Disposal" (Government of Bihar, 2006: 11). Patna's pattern of land use is however quite skewed as a result of this somewhat chaotic and ineffective planning process (see table 1). Land used for both transportation and recreation is low compared to provisions of the 1986 Master Plan.

Table 1: Patna land use patterns (2001)

	Land Use	Area (in ha)	Percentage
1	Residential	8,230	60.88%
2	Commercial	298	2.20%
3	Public/semi-Public (administrative, educational, religious, medical, etc.)	651	4.82%
4	Recreational (parks, etc.)	212	1.56%
5	Industrial	238	1.76%
6	Transportation	1,050	7.77%
7	Water bodies	164	1.14%
8	Agriculture	2,591	18.88%
9	Vacant land	145	0.99%
Total		**13,579**	**100%**

Source: Adapted from Government of Bihar (2006: 12-13).

Industrial land use is also low, although this is also partly due to the broader economic structure of Bihar, which is predominantly agricultural. Most commercial land use is unplanned and occurs organically along the major roadways of the city (see figure 6).

Figure 6: Patna's land use (2001)

Source: Mandal and Dutta (2009: 8)

The predominant type of land use is residential. The most densely populated areas of Patna are mainly along the banks of the Ganges river, with densities varying from 301 to 900 persons per ha. Wards to the South and West of the city vary from 100 to 300 persons per ha in density. The overall average population density of Patna was 137 persons per ha in 2001. Over 90 percent of residential areas are unplanned, with 64 percent of the population of Patna living in areas identified as slums (Government of Bihar, 2006: 32).[6] These slums are fairly

[6] The Government of Bihar considers "slums" to be areas characterised by "infirm housing structures, poor ventilation, acute over-crowding, faulty alignment of streets, inadequate

evenly scattered around the city (see figure 7). 46 percent occupy government land, and 54 percent are on private land.

Figure 7: Slums of Patna

Source: Government of Bihar (2006: 33)

3.3 Demography

Patna's population grew significantly between 1991 and 2001, from 1.15 million to over 1.7 million, an increase of about five percent a year (Census of India, 2001). Preliminary 2011 Census data suggests that the city has grown further, to almost two million inhabitants. Part of the reason for this growth trend is the wider population growth of Bihar, which advance data from the 2011 Census reports to now have a population of 103 million, an increase of over 25 percent from the 80 million recorded in the 2001 Census. This makes Bihar one of the fastest growing states in India, demographically-speaking, significantly above the national average of 15 percent (Census of India, 2001 and 2011). At the same time, the "floating" population commuting into Patna on a daily basis from outlying towns and villages is also projected to increase significantly, from 200,000 to 300,000 by 2021 (Government of Bihar, 2006: 19). Patna's sex ratio was 840 females per 1000 males in 2001. This figure is significantly lower than Bihar's state-level sex ratio of 919 females per 1000 males (Government of Bihar, 2011), which supports the supposition that there are high levels of male worker immigration into the city. This is also reflected in Patna's age structure, as a majority of the city's population falls between 15-44 years (see table 2).

lighting, paucity of safe drinking water, water logging during rains, absence of toilet facilities and non-availability of basic physical and social services" (see: http://urban.bih.nic.in/Docs/Draft-of-Bihar-State-Slum-Policy.pdf).

Table 2: Patna's age structure (2001)

Age	Percentage of population
0-4	7%
5-9	7%
10-14	9%
15-44	56%
45-59	15%
60-64	2%
65+	4%

Source: Government of Bihar (2006: 21)

The vast majority of Patna's population is Hindu (83 percent), but there is a large Muslim minority (16 percent), with the rest Buddhist, Jain, Sikh, or Christian.[7] The main languages spoken in Patna include Hindi, Magahi, and Bhojpuri. The population of Bihar, as is the case of most of India, is characterised by caste. Caste is a fundamental organising principal of Indian society, one of the bases upon which it is divided into a social hierarchy.[8] This is particularly pronounced in Bihar. There are four principal caste categories, namely the upper castes (sometimes known formally as the "general" category), the "other backward castes I" (OBCI), the "other backward castes II" (OBC II), and the scheduled castes (SC). Politically speaking, the most important castes in Bihar are the Brahmins, Bhumihars, Kayasthas and Rajput upper castes on the one hand, and the Kurmis, Keoris and Yadavs "other backward castes II".[9] Scheduled castes include the Bhumji, Chamars, Dhobi, Dhom, Dusadh, Musahar, Nat and Pasi. A list of the principle castes in Bihar can be found in Annex A.

3.4 Economy

Patna is an important commercial centre due to its riverine position, and it is a focal point for the import and export of vegetables and food grains, and an important warehousing location for a variety of goods that travel down the Ganges in particular. The concentration of industrial activities in Patna is otherwise low, however. Few industries exist beyond some steel casting, a few cotton mills, some electronics, and cottage industries including leather and footwear fabrication, pottery, carpentry, blacksmiths, and coppersmiths, as well as brick-making for local use. The informal sector in Patna is significant. It involves mostly low-level service occupations, although there is also some petty commodity production, rag picking, scavenging, and recycling. According to official figures, it comprises more than 30 percent of the workforce, but real levels of informality are likely much higher, around 70 percent at least. Despite the generally stagnant and unproductive nature of the urban economy, the per

[7] See http://allaboutbihar.com/.

[8] The caste system – originally known as the "Varna system" – was first mentioned in the Rig Veda, a text written in approximately 1,500 BC, during the period known as the Vedic period. There are four *varnas*, namely: Brahmins (priestly class), Kshatriyas (warrior class), Vaishayas (merchants and business class) and Shudras (the working class). Caste groups are further divided into sub-castes. For example, the Chamars (people who traditionally work with leather), Mehtars and Musahars (people who traditionally work in the cleaning sector like sweeping and drain cleaning), or Dhoms (groups traditionally working in cremation grounds), are all part of the fourth caste group, the Shudras. This ancient system of occupational stratification gradually more formalized and rigid over time, and is nowadays a form of social stratification that often prevents social mobility. Certainly, many discriminatory practices are associated with the caste system, including for example "untouchability".

[9] See http://ncbc.nic.in/backward-classes/bihar.pdf.

capita gross district domestic product of Patna is nevertheless significantly higher than Bihar's per capital gross state-level product. Overall, Patna is responsible for over 20 percent of Bihar's economic production (see table 3). This, however, is more an indication of Bihar's poverty rather than of Patna's dynamism.

Table 3: Patna and Bihar GDP

	Patna		Bihar (At Constant 1999-2000 Prices)	
Year	Gross DDP (INR Millions)	Per Capita DDP (INR)	Gross SDP (In INR Millions)	Per Capita SDP (INR)
1999-2000	103,552	22,918	501,999	6,304
2000-2001	114,884	24,696	582,604	7,116
2001-2002	117,619	24,498	554,474	6,571
2002-2003	135,520	27,799	619,761	7,243
2003-2004	137,213	27,605	593,856	6,816
2004-2005	159,239	31,441	659,086	7,434

Source: Government of Bihar Directorate of Statistics and Evaluation

According to the 2001 Census of India, the total working population of Patna was 25.2 percent of the city's total population. 41.4 percent of males worked, compared to just 5.8 percent of female population of the city (Census of India, 2001). This is significantly lower than in Bihar more generally, where the state-level work participation rate (WPR) was 32.9 percent in 2001. The gender gap is similarly different, insofar as at state level, the WPR for males was 46.3 percent and for females, 18.4 percent (Government of Bihar, 2011: 243). This suggests that urban labour markets are more constrained and/or saturated than rural ones. Patna nevertheless experiences significant labour immigration. This tends to be seasonal in nature, but overall migration rates increased from 28 percent to 49 percent over a 17 year period from 1985-2002. Most of this increase has involved Muslims, OBCs and SCs, suggesting that the reasons for migration stemmed not only from economic reasons but also for social and political reasons, including caste oppression and discrimination. The World Bank's 1998 Bihar Living Standards Survey recorded that 95 percent of migration was male (see Deshingkar *et al.*, 2009). The India Urban Poverty Report (2009) suggests that most migration in Bihar is from rural areas to medium sized towns, rather than to Patna.

3.4.1 Urban Poverty

The incidence of poverty is extremely high in Bihar compared to the national average. This is particularly true in rural areas, where poverty levels were estimated to be 55.7 percent in 2004-05, compared to an all-India average of 41.8 percent. Urban poverty in Bihar is generally estimated to be lower than rural poverty, reaching some 43.7 percent in 2004-05, but it should be noted that this figure was significantly higher than the national average of 25.7 percent (Government of Bihar, 2011: 242). Not surprisingly, perhaps, Bihar regularly emerges as one of the states in India with the highest levels of urban poverty.

There is significant controversy regarding poverty figures for Patna. As the City Development Plan (Government of Bihar, 2006: 32) describes, "in 2001, it was estimated that out of [1,698,000] persons living in the PUAA, nearly [1,050,00] (63.50 percent) were within pockets identified for slum upgrading, reconstruction or resettlement. A majority of these pockets were in the PMC area and where nearly [980,000] (72.00 percent) of the PMC population of [1,366,000] lived… However, accordingly to [the] PMC those below the poverty line (BPL) within these identified pockets were only [286,000] in the PUA area (17.50 percent of the total population) and only [250,000] in the PMC area (19.00 percent of the total)". Part of the problem here lies in the notion of being "below the poverty line" (BPL), which is a controversial categorisation based on criteria that are frequently modified and vary from state to state, and to this extent, the fact of living in a slum is probably a better indicator of impoverishment than being considered "below the poverty line".[10]

In this regard, according to a qualitative study cited in the City Development Plan (Government of Bihar, 2006: 32-35), 60 percent of the slum population in Patna District is illiterate and almost a third 30 percent unemployed. Nearly 25 percent of children enrolled in schools drop out, and half of school-going children simultaneously work for a living, mostly as rag pickers. Overall, approximately ten percent of slum dwellers are considered fully literate, just over ten percent have finished their primary education, less than seven percent have undergone secondary education, less than five percent have attained their matriculation, less than one percent graduate, and 0.13 percent go on to postgraduate studies. Living conditions in the slums are generally deplorable, a condition that has been exacerbated due to lack of planning, and proper sanitation and drainage, which increases the likelihood of diseases. Similarly, the lack of a solid waste disposal system means that waste is generally dumped on roads and open spaces. 52 percent of slum dwellers use open ground for defecation. The authors of the City Development Plan (Government of Bihar, 2006: 120-122) furthermore conducted their own consultation process, both with NGOs and in some poor slum areas of Patna. They report that two issues in particular were highlighted as especially problematic by slum dwellers:

> (1) The most crucial problem was felt to be the poor sanitation facilities and lack of solid waste management by the PMC. Drainage was also highlighted as a major linked issue, including in particular choked drains, underground seepage from drainage channels, and contamination with sewerage.
>
> (2) There was also "extreme resentment" concerning access to water supply in some slums areas. In particular, the frequency of water supply was reported to be erratic, ranging from once every two days to once a week. To supplement this inadequate water supply buying water from private water suppliers "at a monthly rate of INR 100-150 per 1,000 litres per households, or through private tube wells", was common.

[10] Part of the problem is that poverty is measured in terms of a set of basic criteria including social origins, for example. Moreover, to be classified as "poor" an individuals had to fulfil a certain minimum "score", which changed from state to state. Another major source of contention is the fact that the number of poor was "capped", generally rather arbitrarily according to decisions made by the Supreme Court of India as to how many poor people there were to be in different Indian states. As a result, many who would have been classified as poor according to any sensible measure are excluded. There is also significant manipulation of the category of being "below the poverty line". Individuals classified as BPL are given BPL cards entitling them to certain government social protection schemes, which makes BPL cards extremely valuable (see http://www.downtoearth.org.in/content/bpls-dividing-line).

3.4.2 Poverty alleviation schemes[11]

A major centrally-sponsored poverty alleviation scheme is the SJSRY (Swarna Jayanti Shahari Rojgar Yojana), which entails promoting gainful employment through self employment or ventures, through training in skills for the urban poor, particularly with regard to services provision or small-scale manufacturing. Another new all-India scheme is the RSBY (Rashtriya Swasthya Bima Yojna) which provides subsidised health insurance to those below the poverty line. This began in Patna District in December 2010, and has a total enrolment rate of 165,000 out of 427,546 eligible individuals.[12] Other local poverty alleviation schemes that are operational – at least theoretically – include:

- A subsidy for girls' school uniform: A state government scheme which provides INR 700 to girls every year in order to pay for uniforms up until class 9, while those attending higher secondary school receive INR 1,000.

- *Janani Suraksha Yojna*: A central Government of India scheme that began in 2005 and aims to bring the maternal mortality ratio to below 100 by the year 2012, in keeping with Millennium Development Goal targets. Expecting mothers receive INR 700 in order to deliver in a health facility rather than at home.

- Girls' Cycle Scheme: A state government scheme whereby every girl who completes her education up until the end of class nine gets a bicycle.

- *Mukhyamantri Balika Protsahan Yojana*: A state government scheme to promote the education of girls beyond their matriculation examination (10^{th} class exams). Those obtaining a 1^{st} (60 percent plus) receive INR 10,000 in order to enable them to continue their studies.

- *Mukhya Mantra Kanya Suraksha Yojna*: A state government scheme launched jointly with the UTI Asset Management Company in 2008, and which involves investing up to INR 1.4 billion in order to empower poor girls. The state government guarantees to invest INR 2,000 for the first two girls born on or after 22 November 2007 to any Below Poverty Level (BPL) family, in the UTI-Children's Career Balanced Plan-Growth Option. After 18 years, the girl will receive the amount equal to the maturity value of the investment, estimated to be INR 18000.

- *Mahila Samriddhi Yojana*: A state government scheme whereby women may be loaned up to INR 30,000 at an annual interest rate of four percent, and a repayment period of three years, in order to fund projects that facilitate their participation in the labour market.

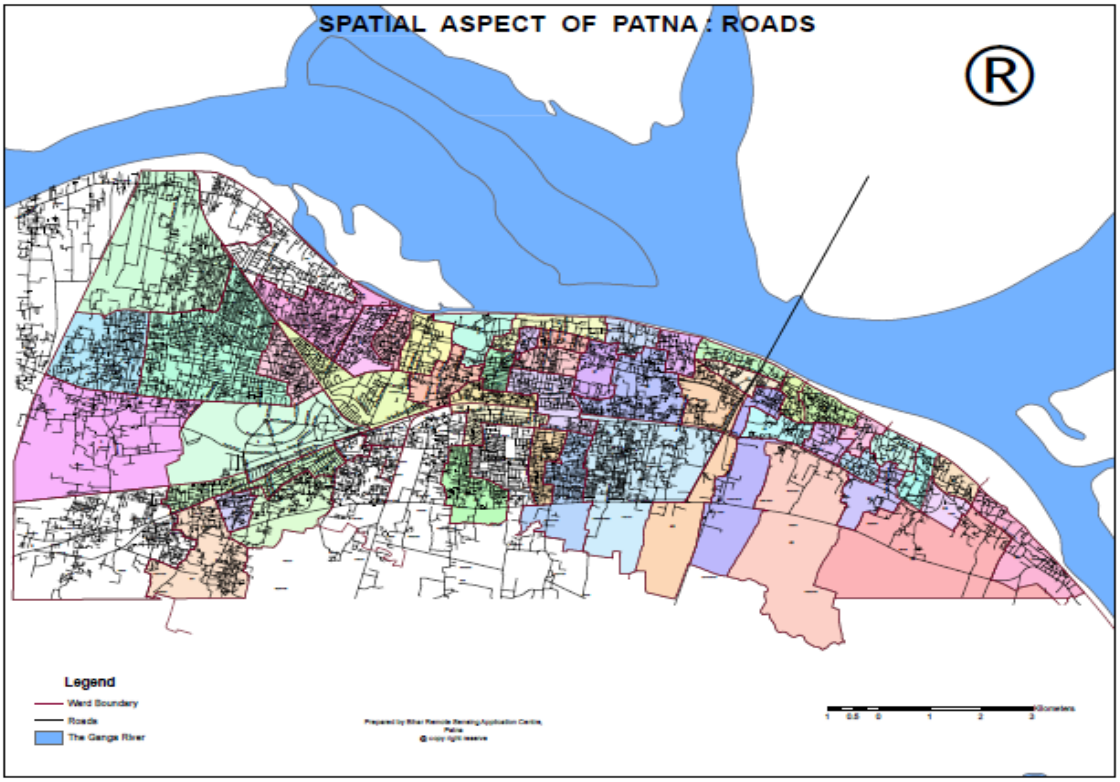
[11] For more details on SJSRY, see: http://mhupa.gov.in/w_new/SJSRYAdmnMechanism-OperationalGuidelines-2009-2010.pdf.
[12] See: http://www.rsby.gov.in/statewise.aspx?state=4#.

3.5 Infrastructure

3.5.1 Roads and Transportation

Patna is not well connected to India's national expressways network, being over 100 km away from both the National East-West Expressway and the Agra-Kolkata Expressway. Its road network is self-contained and principally serves local traffic. It has approximately 1,300 kilometres of roads, only 346 kilometres of which are surfaced. The surface density of roads is 13 kilometres per square kilometres and the average width of the roads is 5.5 meters (see figure 8). There are no pedestrian bridges or underpasses in the city, and traffic lights are scarce, although there are colonial-era roundabouts. Due to unplanned residential areas and irregular markets, the main roads are chronically congested while feeder roads are very narrow, regularly encroached on by shops and business, and also often water logged in areas prone to flooding.

Figure 8: The city of Patna's road network (density)



Source: Bihar Remote Sensing Application Centre

Perhaps not surprisingly, Patna's road network system is widely considered inadequate (Government of Bihar, 2006: 60). It is furthermore under strain due to the massive growth in the number of vehicles in the city. This rose from 4,384 registered vehicles in 1981 to 294,164 in 2001, an increase of over 6,500 percent. Almost 80 percent of vehicles are private, and 67 percent are two-wheelers (Government of Bihar, 2006: 60). In addition, in 2001 there were approximately 125,000 registered motorcycles and 35,000 registered cycle rickshaws in the city, although it should be noted that in both cases there are also many unregistered vehicles – in the case of cycles rickshaws, it is estimated that these may number anything between 150,000-200,000. The increase in the number of private vehicles is partly due to the serious lack of effective public transportation. Only

12 percent of all vehicular transportation in Patna is public transport (Government of Bihar, 2006: 60). This mainly consists of auto-rickshaws, jeeps, minibuses.

According to Singh and Misra (2001: 2), the number of road accidents in Patna is extremely high. The number of fatalities per 100 accidents rose from 28 in 1996 to 45 in 2000, a 60 percent increase. A disproportionately high number of victims are pedestrians, and more than 80 percent are between 18 and 60 years old. The bypass road NH-38 was recorded as most accident prone in the same year. Street lighting is not sufficient which not only adds to inconvenience but insecurity as well. According to the Patna Master Plan, the spacing between street lights is recommended to be 30 meters, but in actual fact, where street lighting exists (and works), it is generally more than 150 meters. According to City Development Plan (Government of Bihar, 2006: 63), there were 9,290 streetlights in Patna in 2006. In terms of other transportation links, Patna is on the main railway trunk line from New Delhi to Howrah, but it is still not yet fully on the Broad Gauge double track electrified system of India. Furthermore, the North-West railway link across the Ganges occurs via Barauni over 100 km to its east. Patna's Jai Prakash Narayan International Airport is increasingly emerging, along with Gwuhati and Bhubaneswar, as a major secondary hub to Kolkata, but it requires a longer runway and better infrastructure for the rapid clearance and movement of goods and people in order to attain its full potential. Finally, Patna is on National Waterway no.1, which stretches 1,354 kilometres from Allahabad to Haldia. In particular, the 356 kilometres stretch between Varanasi and Patna has draughts of between 1.5 and 2.0 meters and is therefore navigable for most of the year, as is the stretch from Patna to Farrakka (411 kilometres) has a minimum draught of 2.00 meters. The volume of traffic is however not as high as it could be (Government of Bihar, 2006: 135).

3.5.2 Housing

Patna is a saturated urban settlement, and suffers from significant housing problems (Government of Bihar, 2006: 40). The city's density is highest in the eastern part of the city along the Ganges river bank, and also near the Patna Railway junction. Due to the problem of water logging, however, urban expansion in these areas is limited. Significant urban expansion is now taking place in the western region of the city, along the Ganges and on either side of the Delhi Howrah trunk rail line. With denser connectivity, other surrounding areas of the wider Patna district such as Hajipur and Sonepur will likely become absorbed within the Patna metropolitan agglomeration. Housing in Patna is divided as Residential (organic/unplanned), Residential (Planned/Plotted), Residential (planned-Apartments) and Identified Slums. Most of the city's residential area is constituted by unplanned/organic settlements; it is estimated that just over ten percent of residential areas are actually planned, whether in the form of plotted land or apartments. The Bihar Housing Board has purposefully developed ten housing colonies over the past few years, and there have also been several private housing developments in the western part of the city (Government of Bihar, 2006: 41). According to the 2001 Census data, there were 269,619 households in Patna, for an average household size of 6.3 persons. 82 percent of these households were located in the PMC, where the average household size was 6.2 persons.

It is estimated that by 2021 the number of households will increase faster than population growth and that the average household size will decrease to six persons (Government of Bihar, 2006: 20-21). Within the PMC area, approximately 132,000 houses are owner occupied, while some 710,000 are rented. According to the City Development Plan, "about half the houses had two room or less and nearly half the areas had covered drains but which were hardly

maintained. Nearly [175,000] houses had in house bathroom facilities and [131,000] houses had in house piped water supply. The rest relied on hand pumps and tube wells. Around 78% of the houses had septic tanks and only 18% were sewered. 85% of the households used gas for cooking and 96% had access to electricity. […] 50% of dwellings are single storied, 35% are two-storied, 8% are four or even more storied and 7% are huts. 30 percent of the dwellings had floor area between 251 to 500 sq.ft. and 20 percent had floor area between 500 to 750 sq.ft. In a rapid survey of people's perception …the residents of Patna in their first requirement indicated the following problems in order of priority: poor drinking water supply; poor drainage and sanitation; excessive water logging; lack of employment opportunities; excessive traffic congestion. There were [also] complaints on quality and access to housing and also on access to transportation, health and education" (Government of Bihar, 2006: 41).

3.5.3 Electricity

Electricity coverage in urban Bihar has improved markedly during the past decade, and there are now 266,375 individual domestic electricity connections in Patna District.[13] This represents almost ten percent of all such electricity connections in Bihar. It is unclear how much of the population of Patna this covers, and how supply is distributed, although it is widely reported that illegal connections proliferate in slums and poorer neighbourhoods (Government of Bihar, 2006). The PMC levies a tax on all electricity connections, but the collection rate is very low. Power surges and cuts are furthermore very frequent, although these affect different areas of the city differently, with richer areas and the new business centre of Patna to the West of the city around Boring Road in particular generally benefitting from better supply than the poorer Eastern side of the city.

3.5.4 Water

The major source of water in Patna is ground water.[14] There are 89 tube wells in the city producing 324 million litres per day against an estimated requirement of 225 million litres. At the same time, however, there is a 40 percent transmission and distribution loss due to the antiquated nature of the distribution network, which means that many inhabitants lack in adequate supply, due both to leakage but also contamination from sewerage and other (Government of Bihar, 2006: 50). According to a study conducted by National Institute of Urban Affairs (NIUA), although 75 percent of population in the PMC has piped water connections, due to low water pressure and poor supply system, only about 40 percent of the city's population can count on obtaining water in this way, a proportion that is significantly lower than the national average of 65 percent (Government of Bihar, 2006: 51-52). In practice, this 40 percent has to obtain their water from a combination of both house connection and public stand post, while 20 percent of the city's population gets water from public stand posts alone, and the remaining 40 percent depend on private tube wells. There are 1,500 public stand posts in the city, and the number of users per public stand posts is over 300 (Government of Bihar, 2006: 58). The city is furthermore projected to become deficient over the next 30 years (see table 4).

[13] See: http://bseb.bih.nic.in/Notices/Final-ARR-2011-12.pdf.

[14] Although there are sources of surface water such as rivers, the cost of filtering these is very high. However, the Urban Development Secretary has recently approved a water scheme that allows exploitation of surface water sources (Meeting with the Principal Secretary, Urban Development and Housing Department, 11 May 2011).

Table 4: Patna's Projected Water Supply and Demand (2001-2038)

	Population (100,000s)				
Year	*2001*	*2011*	*2021*	*2031*	*2038*
Population	14.35	17.27	21.05	25.69	29.44
Domestic Water demand including Commercial / Institutional (MLD)	183.68	221.05	269.44	328.89	376.84
Industrial Water Demand (MLD)	21.52	25.90	31.57	38.54	44.16
Floating Population demand	10.04	12.08	14.73	17.98	20.60
Total Demand	215.24	259.03	315.74	385.35	441.60
Theoretical Water availability	307.80	192.00	155.52	125.97	100.77
Actual Water available	153.65	96.00	77.76	62.98	50.38

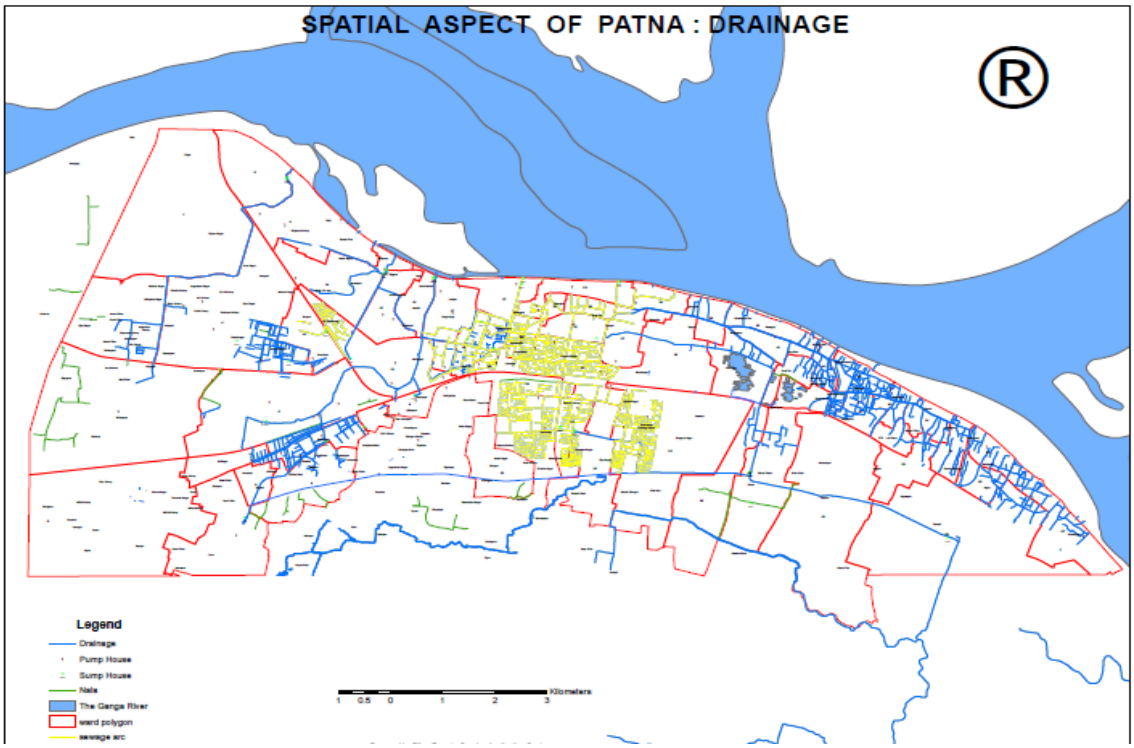
Source: http://vikramshilasociety.org/groundwater/patgwmodel/pat_app4_6.pdf

Patna's water supply system is divided into five zones: the Eastern Zone, the Guljarbag Zone, the Central Zone, the Western Zone, and the Southern Zone. The PMC is responsible for the collection of a water tax, which varies depending on whether the water connection is for domestic or commercial use. The household domestic tariff is approximately INR 40 per month. An estimated 38 percent of owed taxes are actually collected (Government of Bihar, 2006: 54).

3.5.5 Drainage, sewerage, and solid waste management

Many areas of Patna are prone to water-logging, yet the city's drainage system is inefficient and antiquated. It is also extremely partial, and major areas of the city do not have any systematic form of drainage (see figure 9).

Figure 9: Patna's drainage and sewerage network



Source: Bihar Remote Sensing Application Centre

The city's drainage system furthermore generally overlaps with its underground sewerage system, which was built in the 1930s, and flooding, particularly during the monsoon period, frequently causes partly or wholly untreated effluent to flow into open drains. There are sewage treatment plants at Saedpur and Beur in the South and Southwest of the city, and Pahari in the North. The total length of the sewerage network is 33.4 kilometres. Not surprisingly, only 20 percent of total households in Patna are connected, and the majority must depend on septic tanks, although a third of the population does not have access to such facilities and must use low cost sanitation methods whereby the septic tanks are cleaned by cesspool cleaners (Government of Bihar, 2006: 56). There is furthermore no public collective system to dispose of solid waste, resulting in the general disposal of waste on the side of roads and other open spaces, which adds to pollution and health hazards. There is no proper treatment or transporting of garbage, although a civil society initiative called the "*Chakachak Patna* Solid Waste Management Programme", which entails door to door collection of solid waste in the city, has recently been initiated. The city generates approximately 680 metric tonnes of solid wastes every day. 40 percent of this is domestic waste and the rest is industrial and commercial waste (Government of Bihar, 2006: 63).

3.5.6 Education

Bihar has the lowest literacy rate in India, 48 percent as against a national figure of 66 percent (Census of India, 2001). The literacy rate in Patna is higher than the state-level rate, around 70 percent, but still lags behind that of other urban areas in India more generally. There were over 3,500 schools (both primary and secondary) in Patna district in 2010.[15] These are not distributed evenly within the city, however, and enrollment ratios and drop-out rates in Bihar are respectively among the lowest and highest in India.[16] Patna has nevertheless long been an important centre of higher education in India. Nalanda University, approximately 70 kilometres to the Southeast of contemporary Patna, is over 2,500 years old and was the world's first university. More recently, Patna University was an important pole of scholarly attraction, particularly during the colonial period. Numerous other institutions of higher education have emerged during the past few decades, although the city is no longer the major educational centre it once was.

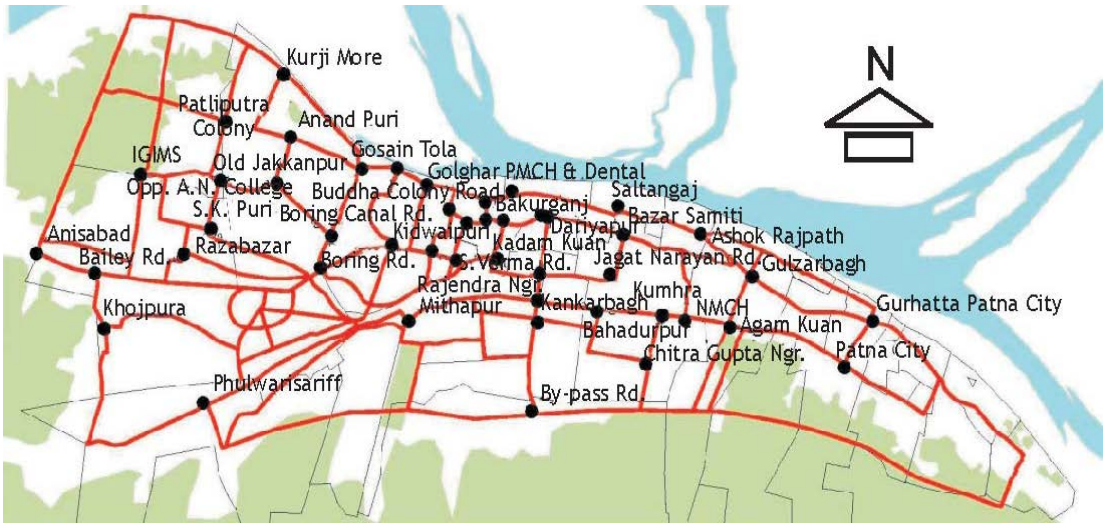
3.5.7 Health

There are 24 Primary health care centres, 60 Additional Primary centres, 32 Urban health posts, one leprosy hospital, five allopathic hospitals and two medical hospitals in Patna district. Like schools, health care centres are distributed unevenly in the city (see figure 10).

Access to public health services is often difficult, and many inhabitants of the city – including the poor – often resort to private services, which are extremely widespread, although not well regulated.

[15] See: http://www.nlrindia.org/index.php?section=12&category=20%20Bihar&page=226.
[16] See: http://www.igovernment.in/site/bihar-improves-primary-education-score/.

Figure 10: Map of health care centres in Patna



Source: Mandal and Dutta (2009: 15)

3.5.8 Infrastructural development schemes

There exist several municipal and state-level infrastructural development programmes. For example, during the financial year 2005-06, schemes worth INR one billion were sanctioned for the development of Patna by the new JD(U) government headed by Nitish Kumar. The City Development Plan (Government of Bihar, 2006) furthermore states that there was an increase in the Patna development plan fund for the year 2006-2007 as compared to the annual plan of 2005-06 from INR 2.239 billion to INR 6.382 billion – almost a threefold increase – which can be seen as indicative of the administration's desire to prioritise urban development. In particular, the state government has sanctioned a project of over INR 200 million to solve the challenge of drainage near the Kankarbagh area in Patna.

The most visible efforts are however national schemes, including first and foremost the Jawaharlal Nehru National Urban Renewal Mission (JNNURM), a national urban development programme that was launched in 2005, with the brief to provide assistance to the state governments for development of urban infrastructure. 63 cities deemed particularly needy were selected around the countries of the country, including Patna.[17] The JNNURM has two components: (1) Urban Infrastructure and Governance (UIG), and (2) Basic Services for Urban Poor (BSUP). A number of projects have been implemented in Patna in relation to the first component, for a total outlay of INR 7,584,400,000 in 2006-10. This included INR 4,983,900,000 for aimed at improving water supply, as well as INR 583,600,000 for a municipal Solid Waste Management Programme (Government of Bihar, 2011: 184-86). As part of the second component, providing basic services to poor, 19,124 houses have been sanctioned for construction at an estimated cost of INR 6,259,500,000 (Government of Bihar, 2011: 187).

A second initiative is the National Slum Development scheme. This centrally-sponsored scheme has provided for measures to promote both the physical and social infrastructural development of urban slums of Patna. The various measures include: (1) the construction of new houses and upgrading of dwellings in slums; (2) the improvement of housing conditions, as well as local infrastructure such as

[17] The city of Bodhgaya is the other city selected in Bihar.

roads, lighting, water, sanitation and drainage; and (3) the improvement and/or construction of social amenities such as schools (including adult education), recreational facilities, primary health care facilities and community infrastructure.[18]

Finally, two other important centrally sponsored initiatives are the Indira Awas Yojna (IAY) Housing scheme, which gives grants to SC/ST and those below the poverty line to help them construct houses as well as convert temporary dwellings into more permanent ones, as well as the Local Area Development Programme, which facilitates the improvement of both physical and social infrastructure at a neighbourhood level. Nine Patna slums have developmental projects under this programme. Moreover, several new schemes were started nationally in 2006 such as the National Urban Renewal Mission (NURM), with a budget of INR five billion, the Integrated Housing and Slum Development Plan, with a budget of INR 30 million, as well as a generic INR 600 million grants programme to urban local bodies.

3.6 Governance

Patna's administration is mainly shared between the PRDA and the PMC, although other state-level organisations also play a role. The CEPT (2006: 5) response to the draft City Development Plan (Government of Bihar, 2006) highlights how there is as a result considerable overlap between "the institutional role and responsibility of various state agencies, para-statal agencies, and municipal departments". Moreover, the "PMC is weak and the state is yet to devolve the responsibilities as per 74th constitutional amendment… It is understood that several of the PMC's positions are vacant or have not been carved out to take care of proper distribution of work…"

The PRDA was formed in 1979, under the provisions of the 1978 Patna Regional Development Authority act. It is responsible for the preparation of Regional Plans, Master Plans, and Zonal Plans. The authority is led by a Chairman, who is the Minister of Urban Development Department of the State of Bihar or any person nominated by the state government for a tenure of three years, as well as a Vice Chairman appointed by the State Government, the State's Chief Town Planner, three members of Urban Local Bodies within Region, a "person of administrative or technical experience" and a social scientist, a special officer of the Patna Municipal Corporation; the Chairman of the Bihar State Housing Board, not more than three members of the Bihar Legislature from the Regional Development Area, the Deputy Development Commissioner of the District, the Bihar State Chief Engineer (Public Health Engineering Department) and the Bihar State Chief Engineer (Public Works Department), and the Secretary of the Bihar State Urban Development Department.

The PMC was established in 1952, under the provisions of the 1951 Patna Municipal Corporation Act. The major function of the PMC are to ensure city cleanliness, solid waste management, the maintenance of gardens, street lighting, fire fighting, flood control, encroachment removal, stray cattle management, sewer maintenance, development works, advertisement, sale of land, house tax, and licensing. Contrarily to the PRDA, the PMC theoretically has power of taxation, but this provision needs to be approved from Directorate of Local Bodies which has not happened yet, so the PMC does not in practice have any powers to levy taxes or charges without the approval of the Bihar State government. The PMC consists first and foremost of a mayor, a deputy mayor and 70 other elected ward

[18] For more details on the NSD scheme, see http://mhupa.gov.in/programs/upa/nsdp/nsdparc.htm.

councillors.[19] The Executive of the PMC functions through an Empowered Standing Committee which consists of nine ward councillors including the mayor and deputy mayor. The members of the National Parliament (*Lok Sabha)* and the Bihar State Legislative Assembly representing constituencies which fall wholly or partially under the Corporation area are also members of this body.

All the 72 wards of the Patna Municipal Corporation are under the executive control of four Circles. Each Circle is administered by an Executive Officer who is deputed by the State Government. Each Circle also has an Assistant Health Officer to supervise sanitation works. Each ward has a Sanitary Inspector. The administration of the Corporation is under the direct control of the Municipal Commissioner who sits at the apex of the Corporation. Three Additional Municipal Commissioners, Executive Officers, Health Officers, Assistant Health Officers, Revenue Officers, Chief Engineers, Chief Accounts Officer, Vigilance Officer, Secretary and Assistant Engineers work towards controlling, monitoring and administering the Corporation (see Annex B for a schematic representation of the PMC administrative structure).

Although not granted autonomous powers to levy taxation, the PMC has been granted the right to do so in a limited manner, and the PMC generates almost 70 percent of its income from its own sources such as property taxes and other services charges, while 15 percent of its income comes from grants, and the rest from loans and centrally-assigned transfers. Overall, however, the PMC's resource base is very low. It has revenues of approximately INR 210,000,000, and expenditures of 250,000,000. The PMC's revenue income decreased between FY 2001-02 and FY 2004-05 at an annual rate of more than three percent, while revenue expenditures increased at an annual rate of close to 12 percent. This deficit is particularly attributable to inconsistent property tax collection, as well as the fact that over 91 percent of these expenditures went on establishment costs (e.g. the salaries and pensions of PMC employees). As a result, on average less than nine percent of revenue expenditures were spent on urban services between 2001 and 2005. On the other hand, a significant proportion of the capital income from grants, loans, and centrally-assigned transfers were spent on public works in the city (Government of Bihar, 2006: 68-77).

The situation has changed significantly in recent years, however, as a result of Nitish Kumar's accession to power, as he radically increased central transfers to the PMC and sought to encourage an increase in spending on social development projects. In 2007-08, for example, the total expenditure on social services was more than one third of the total expenditure. Moreover, by the FY 2009-2010, the PMC's revenue had significantly increased, to INR 1,979,877,015, or ten times the size it was in FY 2004-2005. At the same time, total expenditure was now INR 2,878,076,716, meaning that although the budget has increased and spending as well, the PMC's deficit has also grown.[20]

3.7 Politics

The politics of Patna are inevitably bound up with broader state-level politics. Elections for local municipal authorities were held for the first time in 2007, and the administrative structure of both the PRDA and the PMC mean that both state-

[19] It should be noted that the number of wards in Patna has increased over time. In 1991 Patna had 37 wards, in 2001, 42 wards (the original 37 wards plus five outgrowth area wards), then it increased to 57 wards in 2007 (all new and reorganised), and since 2011 it now has 72 (once again all new and reorganised compared to the 57 ward structure). See Annex C for maps of Patna with 37, 57, and 72 wards.

[20] See: https://www.patnanagarnigam.org/Images/Budget%2009-10.pdf.

level and also national level local representatives play a major role. In this respect, it should be noted that because Bihar is primarily rural, its local politics have traditionally been a function of the quasi-feudal *zamindari* (landlord) system. Indeed, according to Mohanty (2006: 6), the continuing influence of zamindarism is one of the reasons for the state's poverty and underdevelopment. Certainly, the failure to implement land reforms can be said to have generally entrenched exploitative power structures that keep the vast majority of the peasant population of the state at the mercy of landlords even today.[21] From the 1920s, however, the foundation of the *Kisan Sabha* and *Bhoodan Movement* movements began to cultivate the ground for peasant rebellion, a struggle was also taken up by the communist party of India (CPI), and is at the roots of the continuing Maoist (Naxalite) insurgency in many parts of Eastern India, including in particular Bihar and Jharkhand (Shah, 2002).

This peasant-landlord conflict also played out in terms of caste. Indeed, caste can be said to be the principle vectors along which politics have been organised in Bihar, whether in terms of alliances or conflicts. According to Nedumpara (2004), caste became a vehicle of political expression in the absence of a sub-national identity consciousness, and certainly, this has very obviously been the case post-independence. Prior to 1967 – the election year which marked the end of Congress one party rule in many states with the rise of regional parties – the main political players in Bihar were the upper caste, namely the Kayastha, Bhumihar, Brahmins, and Rajputs. Thereafter, backward caste groups such as the Yadavs, Kurmis, or the Koeris began to assert themselves politically under a variety of increasingly prominent leaders, and challenged upper caste dominance in politics, as well as demanding more developmental policies of the kind that were being fostered – rhetorically at least – by the national level government. Muslims also became increasingly important political actors during this period.

The emergence of the backward castes as a political force in Bihar was first evident at the state-level, as the 1967 elections led to many new politicians from these groups being elected to the Bihar *Vidhan Sabha* (Legislative assembly). This new political development affected the nature of state-level political alignments. In particular, the main upper caste groups, which had competed between themselves for power, began to merge in order to gain present a united front against the rising backward caste groups (Jha, 1970). During the 1970s, however, the movement of the oppressed classes in Bihar gathered momentum, especially as a result of the rising popularity of Karpuri Thakur's Socialist Party, as well as Jai Prakash Narayan's "Bihar Movement", which he founded against government misrule and corruption. This latter movement, in particular, came to be seen as symbolic of "*Lokshakti*", People's power, and ultimately led to the foundation of the national-level Janata Party. The 1977 national elections saw the Janata Party came to power ousting the traditional Congress party, a situation that was also mirrored at the state level.[22] This marked the beginning of a new period that witnessed the rise of the backward classes, both nationally and at the level of the state.

Partly as a result of such developments all over India, in 1990, the national government accepted the recommendations of the so-called Mandal Commission to reserve 27 percent of jobs in central government for individuals from backward castes, a decision that was aimed to placate the increasingly influential backward

[21] See: http://www.merinews.com/article/the-history-behind-bihars-under-development/127557.shtml.
[22] It should be noted that Bihar has significant political weight at the national level due to the number of seats it accounts for in the *Lok Sabha* (National Parliament).

caste groups, but angered forward caste groups, including in particular youth.[23] These organised protests and demonstrations all over the country, and Bihar saw some of the most violent clashes between the forward castes (*Bhumihars*, *Rajputs*, and *Brahmins*, in particular), and the politically emerging backwards castes (*Kurmis*, *Yadavs*, and *Koeris*). Patna, in particular, was the theatre of extensive strikes, *bandhs*, and riots that caused many fatalities. These were most often led by youths at Patna University, who felt that their future opportunities were being curtailed.[24]

These incidents created deeper divisions within Bihari society. Not only was there an increasing involvement of backward castes, Muslims, and women in politics as a result, but the upper caste representation in the state assembly declined and that of backwards castes increased significantly. As Shah (2002) reports, an increasing number of candidates from the backward castes were elected, both nationally and state-wise – between 1952 and 1995, eight times more backward caste candidates won during *Vidhan Sabha* elections, and six times more during *Lok Sabha* elections. There was also a noted increase in voter turnout in both state and central elections during the same period, indicative of the increasing political empowerment of the weaker classes. Partly as a result, the 1995 elections saw new alignments emerge in Bihar, which resulted in a peculiar kind of polarisation, not just between the upper and the backward castes, but also within the backward castes. The latter development crystallised in the form of two political camps, the Janata Dal and the Samata party. At the same time, this accelerated the political marginalisation of the upper castes and the waning influence of the Congress party in Bihar, which accelerated following the election of Laloo Prasad Yadav, the leader of the Janata Dal party which won the 1995 *Vidhan Sabha* elections. Laloo – as he is universally known – epitomised the political empowerment of the backward classes. His support base was the highly impoverished North and central parts of Bihar, and particularly comprised poor and marginalised groups such the *Yadav* backward caste group, *Dalits* (untouchables), Muslims, rural labourers, and the landless poor (Shah, 2002).

Although the Samata party that split from the Janata Dal also drew its support from backward castes – but from the *Kurmis* and *Koeris* caste groups – it provided strong opposition to the Janata Dal under the leadership of the current Chief Minister of Bihar Nitish Kumar. The 1996 *Lok Sabha* elections signalled a major change in the Bihar political scene, with the Janata Dal and its allies suffering defeat in the midst of various corruption scandals which associated Laloo's government with the siphoning off of over INR nine billion. Coupled with the presence of an increasingly strong opposition, this led to Laloo's Janata Dal party to further split, and Laloo formed his own party, the RJD (Shah 2002). The RJD allied itself with the Congress party, which had lost considerable ground in Bihar but was dominant nationally. The rump Janata Dal party allied itself with the Samata Party as well as the BJP to form the Janata Dal(U) coalition, which effectively brought together both backward and upper caste groups, and won the 1999 *Lok Sabha* elections against the RJD-Congress coalition (Shah 2002). During the 2000 *Vidhan Sabha* elections, Congress decided to split from RJD and run independently. The Samata party and Janata Dal (U) camp also experienced a split, however, and this led to an RJD victory. Not only had the opposition been deeply divided, but the secession of Jharkhand furthermore considerably changed the political landscape of Bihar to the RJD's advantage. At the same time, there

[23] At the same time, as Mohammad and Matin (1995: 90) have argued, this anger was in many ways also grounded in more "structural stresses", including in particular the increasingly inefficient socio-economic development policies of the government which was increasingly being felt as a constraint by the upper classes.
[24] Another important catalyst for violence was the "National Upper Caste Liberation Front".

were widespread allegations that the RJD had indulged in vote rigging, intimidation, booth capturing and use of muscle men to prevent voters from casting their votes according to their preference, to the extent that these elections were widely considered the most violent in a generation (Nedumpara, 2004).

In May 2005, just before the next assembly elections, a Presidential proclamation ordered the dissolution of the Bihar Assembly on the grounds that the opposition was resorting to unconstitutional political means of stymieing government political action. This decision was widely perceived as unconstitutional by the opposition and there were significant protests throughout Bihar (Tripathi, 2005). It also alienated numerous supporters of the RJD, while the party's credibility was further damaged when several of its more prominent members including the RJD parliamentary leader Syed Shahabuddin were arrested on criminal charges. The Janata Dal (U) led by Nitish Kumar emerged victorious in the subsequent assembly elections, which is widely considered to have ushered a new phase in Bihar political and developmental trajectory.

On the one hand, the Janata Dal (U) had a much broader-based support base than the RJD, bringing together different caste and religious groups in a way that the increasingly parochial RJD was not. Epitomising his new approach was his slogan "*Agada*, *Pichada Ek Ho*" (Forwards, Backwards Unite), which sought to pursue a "socially comprehensive development". On the other hand, Laloo's defeat was widely seen to signal the end of the "Jungle Raj" (i.e. lawlessness) in Bihar, and was also the beginning of a clear drive to modernise the Bihari economy. Certainly, Nitish Kumar's government immediately began implementing an ambitious and broad-based socio-economic development programme, and explicitly sought to put an end to caste-based politics. The steps taken towards increased social justice include reserving 50 percent of posts in local bodies for women and granting financial aid for female students scoring more than 60 percent at their inter-matriculation exams. The assembly elections of 2010 returned a majority for the Janata Dal (U), and have allowed Nitish Kumar to continue his reform programme. Indeed, the Janata Dal (U)-BJP alliance literally swept the elections, winning 206 of the 243 seats being contested, with the JD(U) accounting for 115 seats and the BJP for 91 (Ramakrishnan, 2010).

3.7.1 Municipal politics in Patna

Only one municipal election has been held so far in Patna, in 2007, although a second one is due in 2011. The dynamics of municipal elections are clearly different from those at the state and national level. In these latter cases, the representatives for Patna District and the PMC were members of political parties. As noted above, they play a role in the city's urban governance, particularly in relation to the actions of the PRDA, but with regard to the PMC, power lies principally with the 57 ward councillors. These do not present themselves as members of parties, however, but are elected as individuals. It is interesting however to consider their background in terms of age, sex, socio-economic background and income levels in light of the changing state-level dynamics of politics in Bihar.

Two major differences emerge from the profiles of ward councillors and the representatives elected to the state-level and national-level assemblies. Firstly, the majority of ward councillors elected in 2007 were women (53 percent), while some 40 percent of elected ward councillors were aged below 35, with another 39 percent between the ages of 36-45. Both of these factors could be read as indicators of increasing political empowerment both of women and youth, as well as perhaps more direct participation of local inhabitants in local governance,

although it should be noted that the Bihar Municipal Act 2007 sets out the ambition of a 50 percent reservation for women ward councillors, even if this is not necessarily respected in other walks of life. In this respect, it is also interesting to note that occupationally, 36 percent of elected ward councillors reported to be "housewives", and that close to half of the ward councillors declared that they had an annual income less than INR 50,000, with only a small minority reporting incomes above INR 200,000, which suggests that ward councillors were not members of the Patna urban elite.[25]

In terms of their socio-economic background, on the one hand the caste distribution of elected ward councillors is relatively representative of the population of Patna, with a majority coming from backward castes, as is also the case of the city's general population (see table 5).

Table 5: Caste background of PMC ward councillors elected in 2007

Category	Percent
General	34.72
OBCII	44.44
OBCI	8.33
SC	6.94
ST	1.38
Muslim	4.16
Total	**100.00**

Source: State Election Office, Patna

This however can also be read as a reflection of the way that backward castes have increased their political power over the past two decades, insofar as previously those elected would have mainly originated from upper castes, although once again it should be noted that the Bihar Municipal Act 2007 sets out a 50 percent reservation for backward castes. Anecdotally, there seems to be some correspondence between the caste background of the winning candidate and the dominant caste group within the ward, although it is difficult to determine this systematically due to a lack of disaggregated data.

At the same time, the educational qualification of ward councillors suggest that there is still some elitism in local politics, insofar as a very marginal percentage of the ward councillors are illiterate while more than 25 percent have graduated (see table 6). This of course does not in any way reflect the literacy profile of Patna, as described above.

[25] Conversation with State Election Office officials, Patna, 15 February 2011.

Table 6: Educational Qualification of Ward Councillors

Background	Percent
Illiterate	1.39
Literate	12.50
Non-matriculation	9.72
Matriculation	16.67
Intermediate	15.28
Graduation	26.39
Bachelor in Engineering	1.39
Professional education	1.39
Post graduate	8.33
L.L.B	4.17
Informal training	1.39
Ph.D	1.39
Total	**100.00**

Source: State Election Office, Patna

3.8 Violence

Bihar has long been notorious for its high levels of both criminal and political violence. The period of Laloo Prasad Yadav's rule (1990-2005),[26] is however considered to have been particularly characterised by rampant corruption and the widespread criminalisation of politics, to the extent that it is often referred to as the period of the "jungle *raj*". Certainly, according to media reports, there was major collusion between politicians and organised crime, and also a proliferation of individuals with criminal backgrounds entering into political office. Nitish Kumar's accession to power in 2005 has been widely perceived, and is generally portrayed, as signalling a major shift in the dynamics of violence in the state, setting in motion what is sometimes referred to as the "Bihar miracle", whereby the conflict and violence of the past decade and a half was significantly reduced and the state engaged on a developmental route associated with economic growth, prosperity, and infrastructural improvement. This is thought to have particularly been the case with regards to criminal violence, which is generally perceived to be the most important form of violence affecting both the state and its capital Patna.

Indian National Crime Records Bureau (NCRB) crime statistics for Bihar do not bear this particular narrative out, however.[27] State-level crime, although definitely high in the early 1990s, actually dropped steadily throughout the decade, with the overall rate of crime in particular dropping from 147 per 100,000 in 1992 to 107 per 100,000 in 2001. Although crime began increasing again in 2002, to 110 per 100,000, it subsequently reached its apogee during the 2000s in 2009, to 128 per 100,000 (see Annex D). At the same time, however, while the rate of decline of violent and non-violent crime was essentially the same during the 1990s, during the 2000s – and more specifically from 2005 onwards – there was a major decline in violent crimes such as murder, robbery, dacoity, or kidnapping, with the increase in crime during this latter decade almost wholly due

[26] Laloo ruled directly between 1990 and 1997, and then indirectly, through his wife, Rabri Devi, between 1997 and 2005, following his resignation over charges of corruption.

[27] The National Crime Records Bureau (NCRB) is the Indian government body that is responsible for collecting data on cognizable crime. 1992 had been taken as starting year of reference as before this Patna was not included in the list of cities for which the NCRB published statistics.

to an increase in non-violent crime such as burglary (violence against SC being a major exception, although it should be noted that recorded levels are extremely low).

The trend in Patna has been very similar, although it should be noted that the proportion of crime in the city is considerably higher than at the state, even taking into account the concentration of population. Overall crime dropped during 1992-2001 from 640 per 100,000 to 329 per 100,000, but then increased between 2002 and 2009 from 357 per 100,000 to 516 per 100,000. At the same time, major violent crime declined significantly in the city in the 2000s as compared to the 1990s, with murder, in particular, falling dramatically from 15 per 100,000 in 2003 to eight per 100,000 in 2009 (see Annex E). Similar declines can be observed regarding other violent crimes such as robbery and dacoity, which remained relatively constant during the 1990s, but fell dramatically during the 2000s, while non-violent crimes such as burglary or theft have increased (see table 7).

Table 7: Crime and rates of crime in Patna 2003 & 2009

Categories	2003	Crime Rate per 100000	2009	Crime Rate per 100000
Total cognisable crime	6545	383.4	8806	515.9
Murder	260	15.2	137	8
Dacoity	59	3.5	16	0.9
Robbery	594	34.8	179	10.5
Burglary	377	22.1	537	31.5
Theft	1367	80.1	2247	131.6

Source: NCRB (http://ncrb.nic.in/)

The particular evolution of Patna's crime patterns marks it apart from other Tier II as well as Tier I cities in India (see Annex F). The simultaneous decline in violent crime and rise in non-violent crime becomes particularly evident from 2006 onwards, and can thus clearly potentially be linked to the change of regime in 2005. Certainly, there is no doubt that the Nitish government took numerous innovative steps to control crime on acceding to power, including setting up specialised anti-crime units, including for example against kidnapping or human trafficking units, as well as opening a Police station specifically concerned with violence against SCs. Police salaries have been increased, and ex-servicemen targeted in a recruitment drive. Perhaps the most dramatic measure, however, has been the introduction of fast-track "speedy trials" specifically for violent crimes, which hasten police procedures to file charge-sheets, and have resulted in a massive increase in conviction rates. "The total number of convictions rose from 6839 in 2006 to 13,146 in 2009 which means an increase of 92.46 percent during the period" (Government of Bihar, 2011: 18). More generally, the total number of prisoners in Bihar increased significant in 2005, jumping up from 33,073 in 2004 to 45,818, and 44,281 in 2006.

At the same time, Patna's crime clearly varies significantly from a distributional perspective. Although there the exactitude of the statistics is doubtful – they do not tally with aggregated NCRB figures, including especially non-violent crimes (see Annex G) – disaggregated Police data concerning crime in Patna suggest that the decline in major forms of violence and rise in non-violent crime is unevenly distributed through the city. Some areas, such as Jakkanpur, Patrakar Nagar, or Agamkuan Police jurisdictions, for example, correspond squarely to the

general dynamics of declining violent crime and rising non-violent crime. Others, such as Malsalami or Didarganj Police jurisdiction, for example, have experienced a rise in both violent crime and non-violent crime, while Buddha Colony or Sultanganj Police jurisdictions experienced a decline in both violent and non-violent crime, and Phulwarisharif Police jurisdiction experienced a rise in violent crime and a decline in non-violent crime, for instance (see table 8).

Table 8: Disaggregated Patna crime 2003 & 2009 (selected Police jurisdictions)

Police Jurisdiction	Murder		Theft	
	2003	2009	2003	2009
Buddha Colony	6	4	73	44
Patrakar Nagar	3	2	37	45
Jakkanpur	18	5	31	34
Phulwarisharif	8	9	57	30
Sultanganj	27	6	27	10
Agamkuan	13	5	34	36
Malsalami	4	11	10	23
Didarganj	2	4	14	18

Source: Patna Police

This variability can partly be explained by the segregated spatial distribution of caste (and religious) groups within Patna. As Das Gupta (2010) has suggested, the political transition from Laloo to Nitish signalled a transformation in upper-lower caste relations in Bihar, and this has had an impact on patterns of urban conflict and violence, something that is particularly reflected in the rising levels of violence against scheduled castes since 2005.[28] At the same time, an analysis of media reports about urban criminal violence in Patna also suggests other potential reasons for its variability, linking crime to the city's economic boom (including in particular its exploding land prices and the resulting existence of so-called "land mafias"), disaffected urban youth, Hindu-Muslim tension, as well as rising rural-urban migration (see Mangalmurty, 2011).[29] All of these phenomena are location-specific in Patna, with most new construction occurring in the West of the city, for example, while both disaffected urban youth – mainly students – Muslims, and rural-urban migrants are particularly concentrated in specific areas of the city, respectively the centre, the East, and the North. Similarly, the City Development Plan (Government of Bihar, 2006) notes that major flashpoints of conflict exist in the city as a result of deficient access to water supply, drainage and sanitation services, which are also geographically very variable in the city (see figure 9 above).

To summarise, then, Patna presents a situation whereby there is a widespread perception that patterns of conflict and violence in the city changed significantly from 2005 onwards, following a period of very high levels of violence. Patna does emerge as quite a violent city during the 1990s and early 2000s, particularly when compared to equivalent Tier II cities, as well as major Tier I cities such as Mumbai or Delhi. This is especially the case when its violence is considered from the point of view of overall crime and major crimes such as murder, robbery, and dacoity. Although overall crime levels have actually increased since 2005, there has been a marked change in patterns of urban violence, however. Major (violent)

[28] The figures on which she bases this assertion are very low, however, and apply to Bihar rather than Patna, which is why we have not considered them here.
[29] The veracity of these factors cannot of course be taken for granted, but rather provide a window onto the concerns of the (upper) social class controlling the media.

crimes (against persons) have declined, while (generally non-violent) minor crimes (against property) such as theft and burglary have risen significantly. To this extent, it makes sense to think about 2005 as marking a reversal of a tipping point, with the city moving from a situation of chronic, overt violence back to more managed, contained conflict. This is widely deemed to have occurred as a result of the successful imposition of law and order by the Nitish Kumar government following a decade and a half of “mis-management” by his predecessor Laloo Prasad Yadav.

4.0 Patna Sub-City Study

4.1 Methodological approach

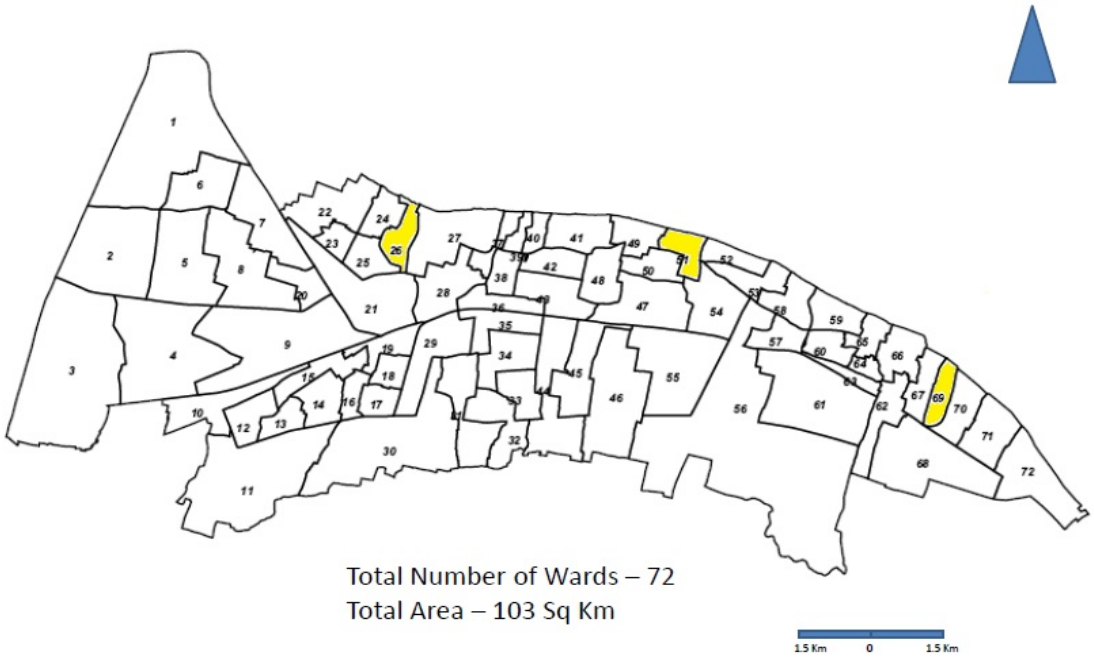
The general overview of Patna presented above points to a number of issues being potentially related to crime, including the city's construction boom, disaffected youth, Hindu-Muslim tensions, and rural-urban migration. It also points to fundamental shift in crime patterns in the city from 2005 onwards, with an increase in overall crime, but a decline in violent crime. At the same time, disaggregated data suggests that this particular trend also displays distributional variation. Cross-referencing these different factors with 2001 census data, three contemporary (2011) city wards deemed representative of Patna's general urban dynamics but showing significant variation in their violent crime trends were selected as sites for local-level primary research. These wards were (see figure 11):

- Ward 26, located in the Western part of the city, which is generally more dynamic and developing faster. This particular ward is the site of a lot of new construction and land speculation. It has a high proportion of schedule caste, however, which is generally indicative of impoverishment, as well as poor water and drainage facilities. It is an area of the city where according to Police statistics between 2003 and 2009 violent crime remained constant while non-violent crime increased.

- Ward 51, located on the Ganges river bank, and which is among the more densely populated areas of the city. It also has a very low sex ratio, which is potentially indicative of the presence of migrant communities, something that was subsequently confirmed via interviews with municipal officials. It has some water and drainage facilities, which spill out into the river, and is located near the newly built and economically important bridge across the Ganges. It is an area of the city where according to Police statistics between 2003 and 2009 violent crime declined while non-violent crime increased.

- Finally, ward 69, in the Eastern part of the city, is in the heart of the old city of Patna, where the Muslim minority is concentrated. It has a low female worker participation rate compared to other areas of the city, and is well connected to water and drainage facilities. It is an area of the city where according to Police statistics between 2003 and 2009 both violent and non-violent crime increased.

Figure 11: Case study wards



Source: DFID India (Patna)

The overarching research concern with exploring the putative associations between poverty and violence, as well as the general impoverishment of Patna's population, clearly pointed to necessity of selecting slum areas within the wards as research sites in order to get to grips with the general micro-dynamics of conflict and violence in the city.[30] Specific slum selection was based on an appreciation of local ward-level dynamics, as well as a consideration of the broader city-wide characteristics that had led to the original ward choice. In ward 26, two slum settlements, Buddha Colony Thana Ke Aage basti and North Mandiri basti, made up respectively of 12 and 42 households, were chosen. These were located on opposite sides of a pond but had little to do with each other and furthermore clearly had very different relationships with their surrounding areas, the former being a close-knit, homogeneous settlement located next to the local Police station, while the latter was more spread out and displayed a high degree of heterogeneity. In ward 51, the New Ambedkar Colony slum area was chosen. This was made up of three distinct areas: New Ambedkar Colony, the Musahartoli slum, and the Dhom Khana slum, composed respectively of 14, 17, and 303 households. These were all located in close proximity to each other in an area known as Sultanganj, and clearly interacted with each other regularly. Finally, in ward 69, the Mansoorganj Musahartoli slum, made up of 100 households, was chosen, partly because it was isolated within an established area of the old city of Patna.

Each slum case study began with a walking tour of the broader ward, followed by interviews with the local ward councillor, local NGO workers (if present), and the local priest or imam. The research team then visited slum settlements within the ward in order to select one or two to focus on specifically. Each slum case study

[30] To this extent, it must be recognised that this study is first and foremost an investigation of the dynamics of violence in Patna's slums and not of the whole of Patna *per se*.

began with a walking tour of the slum in order to observe its physical features, and identify potential issues about which to ask questions and through which to begin discussions. We photographically documented both the slum as well as the research as it was carried out (see http://www.urbantippingpoint.org for an online photo gallery). The latter involved a mixture of focused group discussions (FGDs) and one-on-one interviewing. FGDs and interviews followed a set format in order to ensure comparability of answers across focus groups within a slum as well as between slum case studies, although interviews were also carried out to follow up on emergent issues. Interviews were also carried out at the end of each slum case study with the local Police station head officer, in order to discuss particular violence and conflict trends that emerged from the slum case study.

The primary objective of the FGDs and the interviews was to explore both the potential sources of conflict as well as violence trends – including in particular the criminal violence trends – in Patna from a local-level perspective, as well as the links between them in order to determine whether and how the relationship between conflict and violence could be conceived in terms of "tipping points", and also whether different forms of violence connected to each other. In other words, the research sought to understand how conflict was related to violence both in term of their interrelation as well as the particular patterns of violence in Patna in order to try to understand the factors that lead to urban conflict tipping into violence, as well as those that prevent the inherent conflict of urban life from tipping into violence, or that contribute to reversing a tipping of conflict into violence back to a situation of contained conflict. More specifically, the research also sought to understand how patterns of conflict and violence had changed since 2005, and the kinds of local coping mechanisms and state interventions that occurred in relation to both conflict and violence avoidance and resolution.

Focused discussions were carried out with two types of groups:

> (a) *mixed groups* (i.e. of people representing a cross-section of the local community); and
>
> (b) *interest groups* (i.e. of people who shared a common interest, e.g. an occupational group, a religious group, a caste group, an age group, a gender group, etc.).

In each slum case study, FGDs were carried out with mixed groups and various interest groups (e.g. women, youth, and locally significant groups such as landowners, Scheduled Caste, tenants, Muslims, etc.). The groups ranged between 3-24 individuals, but on average numbered around 8-10. In addition, a dozen interviews were generally carried out in each slum, either with locally prominent individuals (e.g. a local landowner, a school teacher, etc.), or else to follow up on key issues with a particularly articulate focused group discussant. FGDs were conducted collectively by the research team, with one member acting as a moderator, and the others as note takers. Interviews were either conducted collectively or by a minimum of two investigators. The two exceptions to this rule were FGDs with women, which were conducted by the two female investigators on the team, and some interviews with male individuals, including for example with the Imam in ward 51, which was conducted by a single male investigator.

Both FGDs and interviews followed a set format whereby the project background and objectives were explained to participants, anonymity was guaranteed, and the voluntary nature of the research emphasised. Individuals were asked to tell us their age, marital status, caste, how long they had lived in the community, and their occupation, before being asked to discuss the community's history and its most salient characteristics. In the case of FGDs, certain visual tools were

employed, including the construction of timelines and mapping exercises, as well as listing and ranking exercises. Conversation moved from this initial contextual discussion to more focused discussion about the problems affecting the local community, then on to characterising them in terms of conflict, then discussing the sources of violence, and then coping strategies, and finally state and non-state interventions in the community, including in particular with regards to the Police. Then the 2005 elections were then discussed, as well as how it was perceived to have changed the situation in the locality with regards to conflict and violence, following which certain area-specific lines of questioning were then engaged in (e.g. the construction boom in ward 26 or Hindu-Muslim relations in ward 69).

Table 9: Patna slum survey coverage

Slum	No. of households	No. of households surveyed	Coverage
Buddha Colony slum	12	12	100%
North Mandiri slum	42	39	93%
Mansoorganj Musahartoli slum	100	90	90%
Sultanganj slum area			
Dhom Khana slum	17	15	88%
Musahartoli slum	14	12	86%
New Ambedkar Colony slum	303	253	83%
Sultanganj slum area total	334	280	84%
Sultanganj surrounding slums			
Abdul Bari Colony slum	73	67	92%
Old Ambedkar Colony Mehtartoli slum	210	176	84%
Total households surveyed	**771**	**664**	**86%**

In addition to being an important source of information in their own right, the results of the FGDs and interviews were also used to construct a questionnaire, which was then administered as a census survey in July 2011 in all of the slums. As table 9 above shows, 664 households were surveyed out of a total of 771. Coverage was not universal due to the refusal of certain households to participate in the survey, as well as practical issues including the beginning of the monsoon and time constraints. Nevertheless, the surveying in Buddha Colony, North Mandiri, and Mansoorganj slums can be considered representative, as the households that refused to take part in the surveying in the latter two slums did not differ significantly from the general slum profile. The same is true of the surveying in the Dhom Khana and Musahartoli slums in Sultanganj, but not in the New Ambedkar Colony, where a group of 21 Muslim households refused to be surveyed. As a result, a representative survey was carried out in the adjacent Abdul Bari Colony slum which is Muslim-dominated, in order to obtain a Muslim perspective on local conflict and violence issues. The nearby Old Ambedkar

Colony Mehtartoli slum was also surveyed due to the importance of conflicts between individuals in this slum and in the Dhom Khana and Musahartoli slums.

4.2 General socio-economic characteristics of the slums studied

Detailed socio-economic profiles of the four slum settlements studied can be found Annex H; this section offers a general overview of some of their basic characteristics in order to provide relevant background information relative to conflict and violence trends. Overall, the four slums contained a total of 771 households, for a population of approximately 4,300. The average household size was therefore between five and six persons per household. Over 90 percent of survey respondents reported having been living in their slum settlement for more than ten years, with 24 percent claiming to have been there since birth. Thus migration was not a major phenomenon in these settlements. This was further supported by the fact that overall 52 percent of the slum population was male, and 48 percent female, although there was some variation between slums, with the Buddha Colony slum population 53 percent female and 47 percent male, while the Sultanganj Dhom Khana slum population was only 38 percent female and 62 percent male.

Over 70 percent of the population in the slums was under the age of 30, with 15-29 year olds – i.e. youth – making up 30 percent. 80 percent of the slum population was scheduled caste, 11 percent backwards caste, and five percent forward caste (the predominance of scheduled caste partly reflects the fact that many of the slum studied are intimately associated with a particular caste – e.g. Dhom Khana with the Dhom scheduled caste, the Sultanganj Musahartoli and Mansoorganj Musahartoli with the Musahar schedule caste, and the Old Ambedkar Colony Mehtartoli with the Mehtar scheduled caste). It should be noted that the Buddha Colony and Mandiri slums were OBC II-dominated, but because they were relatively small settlements, this tends to be obscured by the wider sample dynamics. Almost 80 percent of households were Hindu, 20 percent were Muslims, and less than one percent Buddhists or Christians.

In terms of education, male members in over 90 percent of the households surveyed had attended primary school (class 1-5), and there were less than two percent illiterate male household members. On the other hand, 48 percent of households reported that their female members had received no education at all, and there were women with primary education in less than 25 percent households. 80 percent of those who work are unskilled, with activities such as sweeper, rag picker, street hawker, and other daily wage work constituting almost 60 percent of occupations, making irregular work the dominant source of income. Overall, the modal monthly household income clearly fell between 2,501-5,000 INR,[31] although as table 10 shows, there was significant variation between slums. Overall approximately six percent of households reported earning less than 1,500 INR, and about six percent reported earning more than 15,000 INR. 48 percent of households claimed to receive some for of social security benefit in the form of Below Poverty Line (BPL), Above Poverty Line (APL), or *Antyodaya* ration cards.[32]

[31] 1USD = 45 INR (June 2011).

[32] These are three state social security programmes that provide material benefits for the urban poor – card holders can buy subsidized foodstuffs from special government approved stores.

Table 10: Total household income in the slums (percent)

Slum	0-1500	1501-2500	2501-3500	3501-5000	5001-7500	7501-10000	10000-15000	15000+
Buddha colony		16.67	25.00	8.33	33.33	8.33		8.33
North Mandiri	5.13	17.95	30.77	28.21	10.26	5.13		2.56
Mansoorganj Musahartoli	13.33	12.22	33.33	18.89	15.56	5.56	1.11	
Sultanganj slum area:								
New Ambedkar colony	4.74	8.30	21.74	28.46	15.42	9.49	6.72	5.14
New Ambedkar colony Dhom Khana		6.67	26.67	33.33	26.67	6.67		
New Ambedkar colony Musahartoli	8.33	16.67	33.33	25.00	16.67			
Sultanganj surrounding slums:								
Old Ambedkar colony	6.25	9.66	12.50	14.20	10.80	15.91	16.48	14.20
Abdul Bari colony	2.99	23.88	26.87	29.85	11.94	1.49	1.49	1.49
Total	**6.02**	**11.60**	**22.29**	**23.19**	**14.16**	**9.34**	**7.23**	**6.17**

Infrastructure also varied between slums, with the inhabitants of the Buddha Colony, North Mandiri, Mansoorganj Musahartoli, and New Ambedkar colony Dhom Khana and Musahartoli slums clearly living in worse conditions than those in the New Ambedkar Colony slum. Since the latter was numerically the largest area studied, its characteristics tend to skew generalisations. In particular, it was clearly observable that while a large proportion of houses in New Ambedkar Colony slum were “pucca”, in the other slums they were almost universally “kaccha”, for example. Table 11 below highlights some of the major variations in basic infrastructure across the different slum areas studies.

Table 11: Basic infrastructure in the slums

Slum	Male open defecation	Female open defecation	Children open defecation	% of households without drainage	% of households with electricity	% of households with informal connection to electricity	% of households with irregular water supply
Buddha colony	75.0	41.67	80.00	83.33	50.00	33.33	-
North Mandiri	5.13	5.13	21.62	30.77	58.97	30.77	2.63
Mansoorganj Musahartoli	95.56	96.67	96.55	91.11	98.89	95.56	16.85
New Ambedkar colony	18.58	18.97	34.48	73.52	99.60	99.21	9.24
New Ambedkar colony Dhom Khana	100.00	100.00	73.33	100.00	100.00	100.00	7.14
New Ambedkar colony Musahartoli	100.00	100.00	83.33	100.00	100.00	100.00	0
Old Ambedkar colony	75.00	0.52	6.67	16.09	100.00	99.43	82.76
Abdul Bari colony	1.5	1.49	18.75	55.22	98.51	58.21	25.76
Total	**21.8**	**21.6**	**33**	**57.7**	**96.2**	**96.5**	**30.73**

At the same time, certain interesting generalisations can be made, including the fact that 76 percent of all households surveyed reported obtaining their water from public hand pumps or stand posts, and 59 percent reported that their households suffered a lack of drainage. Furthermore, 96 percent reported having some form of connection to the Patna electricity grid, although this mostly occurred in an informal fashion.

4.3 Conflict and violence trends

Although the different slums studied displayed specific characteristics and trends, there were a number of basic issues concerning conflict and violence that emerged across all the slums on the basis of both the qualitative and quantitative data collected. In the first place, it was clear from all the FGDs and most of the interviews that 2005 was universally perceived as a turning point in Patna's history of violence, which was considered to have declined significantly. The overwhelming majority of FGD participants and interviewees furthermore explicitly associated this with Nitish Kumar's accession to power, and the implementation of certain specific policies such as the targeting of criminal gangs and the introduction of "fast-track trials", etc. This general perception was confirmed by the survey, which found that 88 percent of survey respondents agreed with the statement that criminal violence in Patna had declined since 2005 (see table 12 below).

Table 12: Percentage of households that feel that major crimes such as murders and kidnappings have decreased since 2005

Slum	Percentage of households
Abdul Bari colony	83.58
Buddha colony	100.00
North Mandiri	79.49
Mansoorganj Musahartoli	94.44
New Ambedkar colony	95.65
New Ambedkar colony Dhom Khana	100.00
New Ambedkar colony Musahartoli	100.00
Old Ambedkar colony	75.00
Total	**88.10**

At the same time, however, all the FGDs and most of the interviews across the slums also confirmed that conflict and violence continued to be regular features of everyday life, something that was also confirmed by the survey: 76 percent of survey respondents claimed that some form physical violence occurred regularly in their slum (see table 13).

Table 13: Perceptions of violence among the households in the slums

Slum	% that thought there was physical armed violence in the slum	% that thought there was physical unarmed violence in the slum	% that thought there was verbal violence in the slum	% that said there were incidents of domestic violence in the slum	% that thought the primary cause of domestic violence was alcohol consumption	% that thought the primary cause of domestic violence was unemployment	% that thought the primary cause of domestic violence was money
Abdul Bari colony	22.39	94.03	100.00	80.60	49.25	1.49	26.87
Buddha colony Slum	-	75.00	100.00	81.82	58.33	-	16.67
Mandiri Slum	7.69	51.28	97.44	74.36	58.97	2.56	12.82
Mansurganj	25.56	55.56	100.00	100.00	80.00	3.33	14.44
New Ambedkar colony	47.83	78.26	98.02	96.05	70.36	5.93	15.81
New Ambedkar colony, Dhom Khana	-	100	100.00	100.00	73.33	26.67	-
New Ambedkar colony, Mushartoli	8.33	100	100.00	91.67	50.00	8.33	25.00
Old Ambedkar colony	14.81	77.27	98.86	91.48	66.48	1.14	23.30
Total	**28.8**	**75.75**	**98.80**	**92.31**	**67.32**	**4.07**	**18.37**

A range of more specific cross-slum trends also emerged from our research. One issue that was repeatedly identified as a major source of conflict that often led to violence in all the slums was insecurity of tenure. In the Buddha Colony slum, for example, the regular encroachment of slum land by the nearby B. D. Public School, starting in the early 1990s, as well as the construction of a *dhobi ghat* and a water pump by the Municipality in the late 1990s, led to the slum declining in size from 100 to some 18-20 households. Further encroachment by the B. D. Public School occurred in 2003-04, which reduced the number of households in the slum to 12. This was accompanied by violent clashes between the school authorities and Patna Municipal officials supported by the Police, which culminated in a shootout. The owner of the school was arrested, although he was quickly released, purportedly due to his close association with Laloo Prasad Yadav. Although B. D. Public School has since principally sought to encroach on land occupied by another nearby slum, the Buddha Colony slum has continued to be threatened, with unknown individuals recently coming to take measurement, and telling local inhabitants that they had vacate the land, something had generated significant fear, as was reflected in the discourses of participants in both mixed and female FGDs:

- "We have already been dislocated before in 1998 and we faced many hardships, so we are scared."

- "Fear [of dislocation] is always troubling us. We have no papers to show that this land is ours and so we just live in fear."

- "Without housing, what is the point of having anything else, a house is the most important. Tomorrow if they dislocate us then what will we do, we do not have enough money to pay rent."

- "If we are removed from here, where will we go? We don't have the means to pay rent. If we earn 500-1000 INR, how can we pay rent which is 500-1000 INR?"

At the same time, fears of more other land tenure-related forms of violence were also expressed. As a female FGD participant pointedly put it, "what can we do when the bulldozers come?" Similarly, although Buddha Colony slum inhabitants were not directly involved in the violence between the School authorities and the Police in 2003-04 which culminated in a shoot-out, this nevertheless impacted their lives. As a youth FGD participant put it: "We were hiding in our huts. This whole disturbance lasted one full week." The fact that the event was still talked about quite vividly almost a decade after was testimony to the powerful effect it had had on the Buddha Colony slum community. At the same time, there was also a pervasive fatalism about such land conflicts, with many Buddha Colony slum inhabitants noting during the FGDs and interviews that "the rich are getting richer and poor are getting poorer in Patna", but contending that this was because of "*jo jiski naseeb mein*", or "whatever is written in one's destiny". In other words, the prevalent view seemed to be that "they are destined to be rich and we are destined to be poor. Why should we fight with them?".[33]

[33] To a certain extent, one could speculate that this particular attitude is at least partly linked to religious beliefs, including in particular the caste system, notions of karma, and the implicit promises of a better life further down the metaphysical line offered by the notion of reincarnation central to Hinduism.

Land tenure issues were also perceived as a major source of conflict spilling directly over into violence in the Mansoorganj Musahartoli. Most of the land in this slum was owned by the Patna Municipality, but an area approximately 500m^2 was in disputed private ownership. On the one hand, it was claimed by an individual called Rajneesh Prasad.[34] On the other hand, local inhabitants claimed that his great-grandfather had donated the land to two or three families in his employ, whose descendents – now amounting to 10-15 households – still resided there. During the 1990s, the affected households had filed a case with the Patna Municipal Corporation in order to regularise their occupancy, but "our lawyer died and the papers were misplaced, and nothing came out of the case", according to one participant in a FGD with members of this affected group. This however prompted Rajneesh Prasad to begin to formally demand the land back, and he was perceived to have been conducted a campaign of intimidation against the 10-15 households living on it as a result. This had purportedly included destroying one of the Mansoorganj Musahartoli water pumps which had been installed in this area, as well as regularly "hiring local *goondas* (thugs) to come in jeeps and tell us to vacate the land, and to fire gun shots in the air", as a participant in a FGD with the affected households recounted. Although slum dwellers frequently tried to involve the Police, as one FGD participant explained: "we call the Police, and sometimes they come, but they never do anything, they just stand aside as we are threatened and refused to intervene, and say that this is a dispute that is between us and him, and that we must resolve it ourselves".

In both these cases there existed a clear sense in relation to such land tenure-related violence that "*mohalle ki larai mohalle mein khatam*" – "a fight begins in the slum, and ends in the slum" – as an interviewee in Buddha Colony slum put it. This contrasted strongly with another important source of conflict and violence in the slum settlements, namely access to basic services such as toilets, water, or electricity. For example, in Buddha Colony slum, the lack of proper toilets in the slum was universally perceived as something that had the potential to lead to conflict and violence. On the one hand, this generally concerned individuals defecating too close to other people's homes, something which more often than not involved children rather than adults. Most of the time such conflict was resolved when parents punished their miscreant offspring (generally through physical violence), although it was noted that half-hearted measures often led to verbal violence between adult members of households, and sometimes to physical violence, although this was generally quickly halted by the intervention of adults from other households. On the other hand, the lack of proper toilets was also seen as a factor in "Eve-teasing" (sexual harassment). In particular, women reported that male youth would often stare as they defecated or, more often, as they bathed at the water pump public stand post. "*Nahane mein dikkat* (we have difficulty bathing)", one female FGD participant complained, explaining that "men stare while we bathe, we ask them to look away and they say, '*zameen tere baap ki hai?*' (is this your father's land?), and we feel very uncomfortable. They stare when we bathe, and when we are changing".

Interestingly, the Buddha Colony Police station frequently allowed women from the slum to use the hand pump located in the Police station courtyard whenever the water pump next to the slum was not working, which female FGD participants felt significantly reduced their discomfort when they bathed due to the semi-privacy afforded by the courtyard walls, and the fact that youth and men did not dare harass them there. Although the Buddha Colony Police station head officer said that this was not an official policy, he suggested that it was a question of being "neighbourly" with the slum dwellers living in front of his Police station, and that the Police did this to avoid trouble: "We have to take steps to make people

[34] A pseudonym.

happy, otherwise they will create trouble. So we take pro-active steps. You know this is Bihar (*laughs*). If we do not take proactive steps, then people will get angry and surround the police stations." It was nevertheless clearly very much appreciated among the Buddha Colony slum womenfolk, and contrasted starkly with the inaction of the Police in the case of land tenure disputes.

The lack of adequate toilets was also frequently brought up as a major issue during the course of interviews and FGDs in the Mansoorganj Musahartoli. As a mixed FGD participant commented: "There are no toilets here. We go outside, children also go outside to defecate, but there is problem with women. We don't like that our women should sit in the open. We feel bad about it. We need toilets here badly." This gendered view was supported by a female FGD participant, who explained graphically that "the women are most affected. They go behind the houses to relieve themselves. In the morning you can see their bottoms flashing in a row. Women are in greater trouble here on this issue than men." Contrarily to Buddha Colony slum, there was little indication that this situation gave rise to any systematic "Eve-teasing", however, perhaps due to the fact that unlike in the latter slum, it was clear from the exchanges about defecation that different areas of the Manosoorganj Musahartoli were – at least informally – allotted to men and women in order to do their business.

Photo 1: Drawing water from the rain overflow of drainage/sewerage (Mansoorganj Musahartoli)

© Dennis Rodgers

Access to water, on the other hand, clearly led to more direct forms of violence in the Mansoorganj Musahartoli. The one working hand pump in the slum only provided an irregular supply of water, and was a source of much tension according to interviewees and FGD participants. As a female FGD participant

commented, “if there are 75 persons taking turn at one hand pump, of course fights will occur, especially when the water supply finishes - *line cut*.” Although several women mentioned that in such circumstances “we go to the Malsalami *thana* (Police Station) to get water, there is piped supply there, and they let us take from it”, this was over a kilometre away from the slum. Slum dwellers often resorted to drawing water from the rain overflow of drainage and sewerage pipes instead (see photo 1 above), with obviously terrible health consequences. As one mixed FGD participants explained, “The water stinks and children fall ill drinking this water. But what choice do we have? We don’t have any hand pump or water supply which will give us clean drinking water.” Another elaborated that “our children fall ill very often. They fall victim to diarrhoea, stomach related diseases.”

Beyond the obvious traumas that this situation engendered, it was also clearly highly resented due to the fact that there was a working well right next to the slum, part of a temple complex, and therefore theoretically public property. The temple had however been taken over by a Yadav caste family “about 15-16 years ago”, and they did not allow slum dwellers to use the well. As one interviewee explained, “the priest was kicked out when the Yadav took over the area, and there are no prayers offered there, the temple has been locked. People tried to fight for the temple, but nothing happened. The government did not do anything about it.” Some interviewees argued that this impunity stemmed from the fact that the family that had taken over the area was a Yadav family and that Laloo, who had been in power at the time, was also a Yadav, while others implied that they were connected with a feared Yadav criminal gang from a nearby neighbourhood, although no solid evidence was presented to back either proposition.

The Yadav family controlling the well did not just forbid taking water from it, but also barred on the spot usage. As a mixed FGD participant explained, “the people of the well say that neither women, nor men are allowed to use the well. They say women cannot bathe here, then where will they bathe? He wants to cover the well and build houses on it to rent out. But the well is on government land and it is a public well.” During an interview, a Malsalami Police officer contended “that is because these people bathe and wash and dirty the place. Their children dirty the place which is why they do not allow them to bathe and wash. Also these people drink alcohol and eat meat and fish, and the family does not want these people to come.” His account thus implicitly puts a caste spin to the conflict, which perhaps explains its virulence and violence. As a mixed FGD participant described, “violent fights take place, ten times in a month. It always becomes violent. 15 days ago gun shots were fired”. Slum dwellers claimed that the Police generally always supported them, telling the Yadav family “that we should be allowed access to water from well. All was well for a day or two. But then the situation reverted back to the way it had been before”.

Violence deriving from conflict over access to basic services also occurred in the New Ambedkar Colony, Musahartoli, and Dhom Khana slums. Here, the scarcity of working hand pumps in these slums was universally identified as a major trigger of conflict and violence. During an FGD in the New Ambedkar Jhuggi Jhoppri slum, one participant for example remarked that “fights break out over water as there is only one operational hand pump”, while during a youth FGD participant in Musahartoli slum recounted how a friend had got into a fight with a youth from the Old Ambedkar Colony Mehtartoli slum because he had not wanted to let him take a glass of water while he was filling a bucket. “Small issues like these lead to fights”, he contended, although he then went to discuss how similar fights occurred over toilets, because Mehtar youths often came over to use the single communal toilet in the Musahartoli slum, despite never contributing

anything towards its upkeep. Similar conflicts were also reported by inhabitants of the Dhom Khana slum: "there are no hand pumps or toilets in the Dhom Khana, whereas there are in the Musahartoli slum, but this is a source of conflict. Recently ten women from the Dhom Khana fought with women from the Musahartoli to try to use the hand-pump there, after they had beaten up a Dhom woman previously, and now the Musahars have locked the pump and don't let anybody use it except for themselves".

In a manner similar to the Mansoorganj Musahartoli, discussions concerning these relatively minor conflicts were generally presented in caste terms, albeit in the form of sub-caste conflict, since Musahar, Mehtar, and Dhom are all scheduled castes. Indeed, they clearly contributed to exacerbate inter-caste antagonism. Certainly, none of the scheduled caste groups in the Sultanganj slum married across sub-castes, neither did they attend each other's social occasions, and at one point during a mixed FGD in the Musahartoli slum, conversation became extremely heated as the group angrily discussed how one of their youth had eloped with a Dhom girl, a social taboo that was has moreover enhanced the significant tension that already existed between the two neighbouring settlements. As one interviewee in the Musahartoli slum put it, "they feel they are the kings of the *mohalla* (neighbourhood), and we feel that we are the kings of the *mohalla*, so we fight…"

Conflict and violence "over water and electricity" could furthermore also "assume a Hindu-Muslim dimension" in the Sultanganj slum area. As a local teacher noted during a one-on-one interview: "Fights start off being about neutral issues but they then take on a communal dimension. People on both Hindu and Muslim sides join the fight and what started off being about everyday issues takes on communal dimensions." At the same time, communal tensions were by no means new to the Sultanganj slum area. During the early 1990s, following the infamous Babri Masjid controversy, a fire occurred in the Muslim-dominated Khadpur area of the New Ambedkar Colony slum. Many houses were burnt, while 40-50 people died, and it was acknowledged by everybody we talked to that this had likely been a criminal act against the local Muslim population (another fire in 2005 destroyed five houses and killed one family in this same area, although in this case the consensus was that the fire had originated due to a faulty electrical connection). More generally, the Sultanganj Police station head officer commented during an interview that "sometimes there are fights between Hindus and Muslims during municipal elections, …and there are tensions during festivals like Eid, Muharram, etc., but police presence is increased during this time. Sometimes small events take communal dimensions, especially during the processions. If someone throws a stone, say at a Muslim procession, then it is thought that a Hindu must have done it, and then it is blown out of proportion and becomes a Hindu vs. Muslim fight".[35]

Such targeted preventative Police action seemed to be part of a broader pattern of trying to contain conflicts that had the potential to spill over into violence that

[35] The Sultanganj Police Station head officer also told us about an initiative called the *Shanti* (Peace) Committee, which was a city-wide scheme that sought to foster cooperation between a range of "like-minded peaceful people" including the Police, Municipal administration, religious groups, and the public more generally. Although he initially suggested that this committee worked particularly during festivals to minimize violence, he then discussed the initiative in a very different manner, almost as a Police information network whereby local level members of the public would keep a close watch on "those involved in creating trouble" and "make the police aware, inform them about bad elements and security issues". Also very interestingly, one interviewee also told us about a mixed group of Hindus and Muslims that emerged spontaneously to (successfully) try to maintain peace and calm in the Sultanganj slum area during the 2002 riots in Gujarat.

might extend beyond the slum. The conflict and violence associated with land tenure issues generally seemed to remain contained within the localities in which they occurred, and moreover tended to be consistently presented as issues of rich vs. poor, which were fatalistically accepted, hence the relative Police inaction in relation to these cases. By contrast, conflicts over access to services, although local in nature, were often rapidly projected in terms of caste antagonism, which obviously had the potential to spread far beyond the locality, and therefore the Police would generally act to limit them. This could also be seen in relation to Hindu religious festivals. As a participant noted during a youth FGD in Buddha Colony slum, in the past "fights broke out during the submersion of the statues at festivals such as Durga Puja, Lakshmi Puja, or Saraswati Puja. There were many cases of gunfire in the past, as everyone wanted to make sure that their statue was submersed first." Now, however, "there are police vans behind each procession now. This is to ensure that everything remains peaceful". This was also brought up during a youth FGD in North Mandiri, with the extra detail that the violence often originated as a result of rivalry between different student hostels in the area sponsoring different statues, and seeking to be the first to immerse their statue in the Ganges, and that these hostels were often disproportionately visited by Police patrols.

Generally, the Buddha Colony Police station head officer – within whose jurisdiction North Mandiri fell – agreed that patrolling "has increased and become more regular. We organise more patrolling in areas that we have identified as crime prone." Participants in a female FGD in North Mandiri slum explained this in terms of the "Police have rounded up trouble makers", and "are more present than before". At the same time, it was clear from the participants in a youth FGD in both Buddha Colony and North Mandiri slums that Police patrols were also targeting local youth more generally, irrespective of who and where they were. As one of them put it, "the police target young people like us when we drive or cycle around. They attack the youth because they think we create trouble… They target us for no reason, even when we… come back from work at night and we just want to relax. They stop us… and search us, and take us to Police station and lock us up if we don't have any evidence where we're coming from. The Police see this boy or that boy… and they become suspicious. This has happened to me two times." Another youth explained that the "Police harass us a lot, even when we are just sitting around peacefully... For the past 2-4 months, we have become so tired of their harassment that we have stopped hanging around, now we just stay inside the tea shop. *Police ka kafi dabdabaa hai* (Police exert a lot of power and authority here)."

This kind of Police action was very much associated with Nitish Kumar's accession to power in 2005. As a Buddha Colony youth FGD participant described, "since Nitish has come to power, he has given much more power to the police" (and then adding, somewhat wistfully, "before 2005, it was better"). This was something that the Buddha Colony Police station head officer also implied when he told us that "now, we can do anything on behalf of law", and explained how this had meant that they had been able to bring crime "under control", and reduce the outbreaks of violence that occurred regularly during the Laloo years. In this respect, perhaps the most obvious example of changed Police action in Patna since 2005 has been the widely reported crackdown on organised crime that occurred following Nitish Kumar's accession to power. In general terms, this initiative was in many ways a mirror image of the famous "zero tolerance" approach implemented by Rudy Giuliani in New York during the 1990s, whereby he directed Police there to crack down on petty crime in order to create a less crime-prone environment, on the grounds that "if you take care of the pennies, the dollars will take care of themselves" (i.e. if you tackle small crimes, then big crimes will disappear).

As mentioned above, there is no doubt that the implementation of the Nitish regime's crackdown has had a significant impact on crime trends in Bihar generally, and Patna specifically. This emerged very clearly in the North Mandiri slum, which was located in a broader area that had long been notorious for its crime and in particular its gang violence, to the extent that "in the past, there was *aatank* (terror)", as the local ward councillor put it. In particular, during the early 1990s, there emerged a number of organised criminal gangs, including the notorious rival Gop and Mahto gangs. These were both involved in violent crimes such as murder and kidnapping, as well as threats, extortions, and gambling, and they would also interfere in municipal development projects such as the building of roads and infrastructure, stealing materials or extorting bribes. As the director of a local NGO put it, there was "a lot of fighting and bullying, and showing of power (*bahut dabang hota tha*). They used to pressurise rich people to give donations for festivals, they used to force shop keepers to give donations." Mandiri's reputation suffered significantly, and life in the neighbourhood became difficult according to many interviewees and FGD participants who had been living there during this period.[36]

Following Nitish Kumar's accession to power, however, the Police engaged in a systematic crackdown on organised crime, and although "smaller criminals are still around", the Gop and Mahto gangs were broken up, with their principal members arrested, and "many others fleeing". The Police also explicitly targeted "*guessing*" ("gambling"), due to the fact that much of the organised criminal activity in Mandiri during the 1990s and early 2000s had revolved around controlling illegal gambling. As a mixed FGD participant commented, "lottery shops which made 10,000-20,000 INR a day have been closed down, and this affected the gangs". Another, more broad-based measure adopted by the Nitish Kumar government in its campaign against organised criminality involved the liberalisation of the until-then strictly controlled sale and production of alcohol in Bihar. In particular, the Nitish Kumar government decreed a significant reduction in excise duty on alcohol in 2007, explicitly in order to undermine the so-called "liquor mafias" that had proliferated as a result of the restrictions, although it should be noted that the policy also had the added advantage of increasing alcohol sales and boosting government revenues from from INR 2.7 billion in 2005 to INR seven billion in 2008.[37]

At the local level, however, the new policy had some severely negative – although clearly unintended – consequences. In particular, it was striking that all interviewees and FGD participants in North Mandiri – and some 90 percent of survey respondents in all the slums studied – highlighted how there had been a massive proliferation of alcohol shops, both legal and illegal, since the introduction of the new legislation. This was universally perceived as having led to increased levels of violence. "Arguments turn violent because of alcohol", and "alcohol related fights are extremely violent", as an interviewee in North Mandiri put it. In particular, all interviewees and FGD participants agreed that levels of domestic violence had increased significantly in the slum since the liberalisation of alcohol sales. Most incidents of domestic violence were clearly contained within the home, even if when "he beats me in the house, …it sounds like a bomb explosion and everyone outside can hear it and knows what is going on", as one

[36] According to the director of a local NGO, the impact of this gang warfare was particularly negative for Mandiri women: "Many girls dropped out of school and were married off early out of fear. Women would change their routes out of fear and to avoid harassment by gang members. The gang member would tease women from each other's gangs. Tease the women from other gangs. Thus many girls stopped their education."

[37] See http://indiatoday.intoday.in/story/Uncorking+the+bottle/1/80315.html. The contribution of excise tax to the total Bihar state revenue increased from just under nine percent in 2005 to over 15 percent in 2011 (Government of Bihar, 2010 and 2011).

female victim of domestic violence put it. Another victim recounted how her husband had "misbehaved in public, in front of everyone", trying to stop her from taking her matriculation exams, but that "because everyone was there, he stopped. They told him to stop misbehaving and to solve personal problems at home and not here". This person however made clear that such interventions did little other than postpone beatings, and certainly did not solve any of the underlying issues.

The Police was universally perceived as failing to intervene in relation to this issue. In particular, as a North Mandiri female FGD participant commented, "they only catch the drunkards out on the roads not inside the basti", something that was confirmed by a self-confessed male domestic abuser, who explained that "they arrest from the road, but they don't arrest from the homes". Certainly, Police officers themselves argued that such incidences of domestic violence were private issues, and although they claimed that the Buddha Colony Police station had a women's affairs officer, she was not mentioned by any of our interviewees in either Buddha Colony slum or North Mandiri slum, and the station head officer's general description of Police activities to reduce domestic violence very much supported the comments made by local inhabitants that the Police did not intervene in the slums themselves but only picked up intoxicated individuals who were making a public spectacle of themselves outside their slum. The logic behind this attitude was very much perceived as being that so long as alcohol-related violence remained contained within the slum it was not considered a problem.

This sentiment was echoed in Buddha Colony slum, where FGD participants also complained about the proliferation of alcohol shops since 2005, and the lack of Police action against illegal vending outlets. As one youth FGD participant described: "During Nitish's time, so many wine shops have been opened, and the cost of alcohol has come down… Wine shops selling both English (foreign) and local liquor have opened up everywhere – near the *basti*, in Police line, the Bans *ghat*, Rajapur Pul, Boring Road… They even sell from houses. Many stores do not have proper licenses, but the Police obtain a fixed share of their revenue, and so do nothing, except when the shopkeepers delay in sending their share, and the Police raid the shop and seal it." As in North Mandiri slum, alcohol was seen as a major source of conflict and violence. Both youth and women for example highlighted that the establishment of alcohol shops near the local Kali temple meant that women were often harassed on their way to pray by intoxicated men.

Interviews and FGDs in the New Ambedkar Colony, Musahartoli, and Dom Khana slums similarly revealed that alcohol was widely perceived as a significant cause of violence. More than 90 percent of households surveyed in the Sultanganj slum area claimed that domestic violence occurred in their settlement, with alcohol consumption by husbands identified as the primary cause, something that was also confirmed in all the female FGDs in the different slums. "*Itna maara ki sar phor diya*", "my husband beat me so badly that my head burst", a female FGD participant told us while describing her own experiences of domestic violence at the hand of her drunken husband, while another reported that "many families have been destroyed by alcohol as people sell things to buy alcohol". Another added that "men spend money to drink, while women spend money to take care of their house and their children". According to all of our interviewees and FGD participants, the number of alcohol shops had been rising steadily in the area during the last 5-6 years.

There also existed the notion in the Sultanganj slums that the proliferation of alcohol was very much a consequence of the Nitish government policy. As an interviewee in the New Ambedkar Colony slum put it, "during Nitish regime alcohol shops have opened up in each and every house, both licensed and

unlicensed. The purpose of the government is that on one hand it should earn revenue, and on the other hand that the Dalit class (scheduled castes) should remain engrossed in alcohol. This is why Nitish has allowed alcohol shops to be opened from each and every house." Another interviewee from the Old Ambedkar Colony Mehtartoli slum echoed this, claiming that "the government has opened these alcohol shops. Instead of opening water shops, they have allowed alcohol shops to open (*laughs*). This way the poor remain quiet and calm, and they do not protest. They have done this for their benefit. The government gets revenues and the poor sleep and do not make demands on the government." The extent to which the Nitish government can be considered quite so Machiavellian is debatable, but the fact that blame for rising alcohol consumption was increasingly attributed to the Nitish government remains a factor that needs to be taken into account.[38] Generally, the survey confirmed that alcohol was perceived as a major cause of violence in all four slums studied, particularly by women (see table 14).

Table 14: Gender-wise perception of major causes of violence in slums

Cause of Violence	Male (%)	Female (%)
Domestic strife	19.29	20.26
Alcohol	67.32	80.77
Bad behaviour of youth	29.53	32.82
Eve-teasing and harassment	8.27	5.13
Money	3.54	4.87
Garbage	3.15	2.31
Politics	0.39	-
Toilets	7.09	3.33
Landowning	1.97	0.51
Water	26.77	24.1
Religious festivals	7.48	8.46
Personal fights	8.66	5.9
Caste	0.39	-
Religion (in general)	0.39	0.26
Other	4.72	2.56

[38] It was interesting to note that the view concerning alcohol consumption in the Mansoorganj Musahartoli – which was generally considered more peaceful than the other slums studied, with only half of survey respondents reporting that physical violence was a regular occurrence in the slum – was somewhat different. Although alcohol was brought up in interviews and FGDs, it was clearly not considered problematic in the same way as in the other slums. Part of the reason seemed to be that there were no alcohol shops in the slum itself, only in surrounding areas. There was also a certain fatalistic acceptance of alcohol consumption, which was justified in terms of the extreme impoverishment of the slum inhabitants and their horrendous working conditions. As one interviewee put it: "We do dirty work. We have to dispose of latrines. We descend in the drains. Can you imagine? Right now, I have just come from collecting and throwing away the carcasses of dogs. They gave me 50 INR for this. We drink to do all this dirty work under the influence of alcohol. Sometimes we take 250ml, sometimes 500ml. We have to manage to get through the day." Alcohol consumption was sometimes linked to violence, and more specifically domestic violence, during interviews and FGDs, but this was often described in a rather joking manner, in stark contrast to other slums where research was conducted. For example, answering a question about the way that people in the slum reacted to alcohol-related domestic violence, one female FGD participant replied "sometimes neighbours try and stop, otherwise *tamasha dekhtein hain* (they stand and watch the fun). Sometimes we yell at the drunkards and abuse them to make them understand and stop. But we cannot put our husband in jail can we? (*Laughs*)."

5.0 Conclusion

The four slum case studies highlight a range of common issues, which suggest a number of critical issues concerning the dynamics of conflict and violence in Patna. Perhaps the most important from the perspective of understanding the tipping point of urban conflict is the way that relatively everyday antagonisms over access to water or toilets have the potential to become significant sources of violence, insofar as they often lead to a polarisation along caste and communal lines. The fact that such important fault-lines can come to the fore as a result of such mundane issues shows how small conflicts can lead to larger ones, thereby causing situations of more or less manageable conflict to "tip" into violence. The existence of such "violence chains" is critical, particularly with regards to policy. Thinking in terms of the reversal of Patna's tipping point from conflict to violence since 2005, it is especially interesting to note how Police patrolling in the city has become very much targeted at containing conflicts that can lead to forms of violence that might spill beyond the local slum locality rather than eliminating violence more generally. The patrolling of conflicts that often lead to forms of violence that can be seen as caste and communal "flashpoints" – such as festivals, for example, but also interventions relative to conflicts linked to water access which often take on caste characteristics, in stark contrast to land conflicts – is a clear example of such differentiated police action, which aims at breaking the chain of violence to prevent it from spilling over and potentially leading to a tipping point.

The fact that the Police intervened in some of the conflicts over access to services and not others can be linked to the particular nature of these conflicts. As one Mansoorganj Musahartoli interviewee explained with regard to the differences between conflicts over water and over toilets in her slum: "we fight over water and over toilets. But over water, fights are with others, and over toilets fights are with each other, hence fights over water are more serious as those are with outsiders." Hence the Police was more likely to intervene in conflicts over water than those over toilets, as the Buddha Colony slum research highlighted well. This spatial dimension to understanding the dynamics of urban violence is often underplayed and indeed generally ignored, but is critical to understanding the underlying logic of the so-called "Bihar crime miracle". In particular, in Patna the "crime miracle" emerges as spatially biased, raising the critical question of whether the city has seen a reduction in violence or a transformation in its violence.

Although Nitish Kumar's government proudly – and rightly – publicises its track record of having improved the law and order situation in Patna, the means through which it has done so, through targeted campaigns of repression against organised crime, "fast track trials",[39] and increasing both the powers and the resources of the Police has also had a number of less positive consequences, particularly when considered from a spatial perspective. Perhaps most obvious is the trade-off associated with the liberalisation of alcohol sales and production, which despite successfully contributing to the disbanding of "liquor mafias" and also increasing government revenue, has also led to a significant increase in alcohol consumption in poor slums in Patna, and the proliferation of an attendant

[39] The impact of the fast track trials is indisputable. As an interviewee in Sultanganj explained, "now big criminals are inside the jails. Small criminals are also going in the jail. During Lalooji's time the criminals used to get bail within two days. But now whatever you are, you don't get bail. Now police have been given power. Earlier the political leader used to make a call to the police, and police used to become non responsive. But now law is being observed in word as well as action". To what extent miscarriages of justice have increased as a result is a question that arguably deserves further research.

violence, particularly in the form of domestic violence against women. According to our survey in the four slums studied, women were identified as the principle victims of violence by some 75 percent of respondents, and the principle cause of violence was identified as alcohol consumption by 57 percent of respondents, with access to water a distant second (13 percent of respondents).

At the same time, domestic violence tends to remain contained within the slums, contrarily to the brutality of organised crime, which was spatially more spread out and affected a greater proportion of the population, including in particular the rich. Hence Patna is now a much safer city for those whose lives are more mobile, or living within richer areas, but arguably less so for the overwhelming majority living in the city's slums. It was striking in this respect that some 76 percent of survey respondents reported that intra-slum violence primarily involved local inhabitants, then husbands and wives (13 percent). To a certain extent, this situation is clearly a consequence of the new Policing practices introduced since 2005. As one interviewee memorably argued, Patna has evolved from the "Jungle *raj*" under Laloo, to the "*Daroga* – or Police – *raj*" under Nitish.[40] Many of those interviewed in the slums actively saw this as a new form of biased urban governance. As an interviewee in the New Ambedkar Colony slum put it, "during Laloo's time some help was given to us, but during Nitish Kumar's time, it is all show. Development is all a show, where is the development?" Another interviewee put it even more starkly, claiming that "Laloo was the leader of the poor, while Nitish has been doing things for the rich", implicitly alluding to a sense that there existed one set of rules for the poor and another for the rich. At the same time, however, the extent to which the negative consequences of the Nitish regime's measures are intentional is highly debatable.

There is no doubt that organised crime has been significantly reduced as a result, which is no small feat, and definitely a positive one at that. Certainly, there is little evidence that in Patna, at least, criminal groups played much in the way of socially constructive functions, as has been noted of such institutions in other parts of the world (see e.g. Rodgers, 2006). Although our research suggested the Police reform is incomplete in Patna, and that more efforts need to be made in order to promote greater accountability and prevent abuses, it also revealed a number of Police practices that clearly suggest that it is unlikely that a systematic and Machiavellian anti-poor agenda is being implemented. In particular, two local Police station spontaneously opened its doors to women from two of the slums studied who were looking to access water in a safer environment, although such actions do need to be considered alongside the fact that many local development programmes implemented by the Nitish regime since 2005 have specifically targeted women (including for example the initiative offering free bicycles to women who finish their schooling), and his landslide 2010 electoral victory was principally based on women's vote…[41] It is also significant that in November 2011 Nitish Kumar declared his intent that Bihar observe a Prohibition Day every 26 November, in order to highlight the social ills associated with alcohol consumption, and that "the government was intentionally raising the price of liquor so poor

[40] It should however be noted, that although participants frequently complained about the selective responsiveness of the Patna Police, and sometimes claimed that some policemen were involved in minor forms of extortion relative to local businesses, that nobody that we talked to raised any issues relating to putative instances of Police brutality, in stark contrast to what is widely reported to be common Police practice in the rest of Bihar (see ACHR, 2009), and there was little fear of the Police.

[41] Personal communication, Shaibal Gupta, Director, Asian Development Research Institute, Patna.

people who barely have money to feed their families do not blow their income on alcoholic drinks".[42]

Thinking in terms of tipping points, two major insights of the research presented in this report concern the importance of certain forms of conflict that can link up to more latent socio-cultural fault-lines as well as the spatial distribution of violence. It's clear that one of the ways in which everyday conflicts tip into broader forms of chronic violence is when these become interpreted in terms of more deep-lying social differences that transcend a particular context. In a related manner, when particular forms of violence that originate in a specific locality over local concerns begin to spill beyond this locality, then we are more likely to see a tipping point being crossed. The spread of organised criminality in Patna during the 1990s and early 2000s is a case in point, with local criminal gangs extending their reach and territorial control beyond their (poor) localities of origins, thereby leading to a heightened fear of crime and violence in the city, as well as a "moral panic" among the middle and upper class inhabitants of the city. Seen from this perspective, it is perhaps not surprising that the reversal of Patna's tipping from managed conflict to chronic violence back to managed conflict from 2005 onwards has been based on targeted, preventative interventions to limit the scope of certain types of conflict that have the potential to lead to forms of violence that reach beyond slums, as well as the containment of continuing and new forms of violence within slums.

While effective in terms of city-wide levels of violence, at the level of the slum it can be argued that such policies have led to an intensification of certain forms of conflict and violence. While there has undoubtedly been a reduction in major forms of violent crimes such as murder, robbery, or kidnapping, there has also been a rise in less spectacular forms of violence, including in particular domestic violence. When seen from this perspective, the notion that Patna has witnessed a reversal of its urban tipping point is arguably wrong, and instead there has occurred a transformation in patterns of violence in the city. The obvious question that this raises is how sustainable the current situation is, and whether it can be improved upon. The fact that much of the intensification of violence seems to be unintended is encouraging in the latter respect, as is the fact that Nitish Kumar's government has recently decided to take action on alcohol sales. At the same time, however, one of the most obvious issues to consider is the fact that although many of the conflicts and the violence that affects contemporary Patna have clearly been contained, most of their underlying causes have not been tackled. In particular, Patna has long suffered major infrastructural problems, whether in terms of the quality of its physical service networks, but also the non-inclusive nature of its planning. Many of the current conflicts leading to violence in the city's slums can be directly linked to these broader factors, and until they are engaged with meaningfully, it is unlikely that existing patterns of violence will change, much less abate.

[42] See http://www.patnadaily.com/index.php/news/6660-nitish-speaks-of-ills-of-alcohol-consumption.html.

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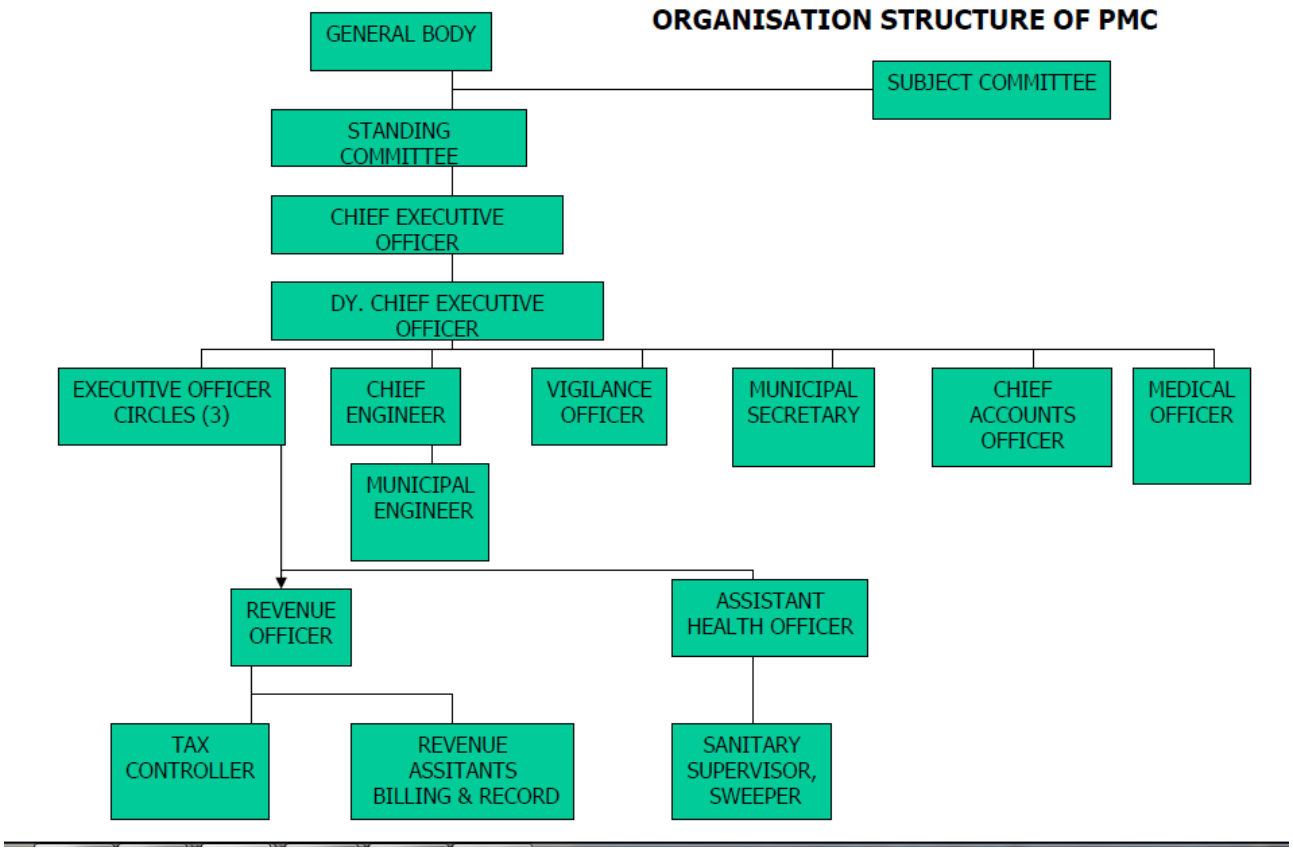
7.0 Annex A: Castes in Bihar

Caste Name	Category
Brahmin	Upper
Rajput	Upper
Bhumihar	Upper
Kayastha	Upper
Baniya	OBC II
Teli	OBC II
Sundhi	OBC II
Yadav	OBC II
Kurmi	OBC II
Koyari	OBC II
Barhi	OBC II
Lohar	OBC II
Gaderia	OBC II
Sonar	OBC II
Kumbhar	OBC II
Kanu	OBC II
Mali	OBC I
Nai	OBC I
Kahar	OBC I
Mallah	OBC I
Kewat	OBC I
Dhanuk	OBC I
Bind	OBC I
Hharwar	OBC I
Rajwar	OBC I
Mandal	OBC I
Nonia	OBC I
Beldar	OBC I
Chamar	SC
Dusadh (Paswan)	SC
Dhobi	SC
Pasi	SC
Mushar	SC
Dhom	SC
Bhuiyan	SC
Upper caste Muslim	Upper Muslim
Lower Caste Muslim	Lower Muslim
Scheduled Tribe	ST

Source: Institute for Human Development's own investigations

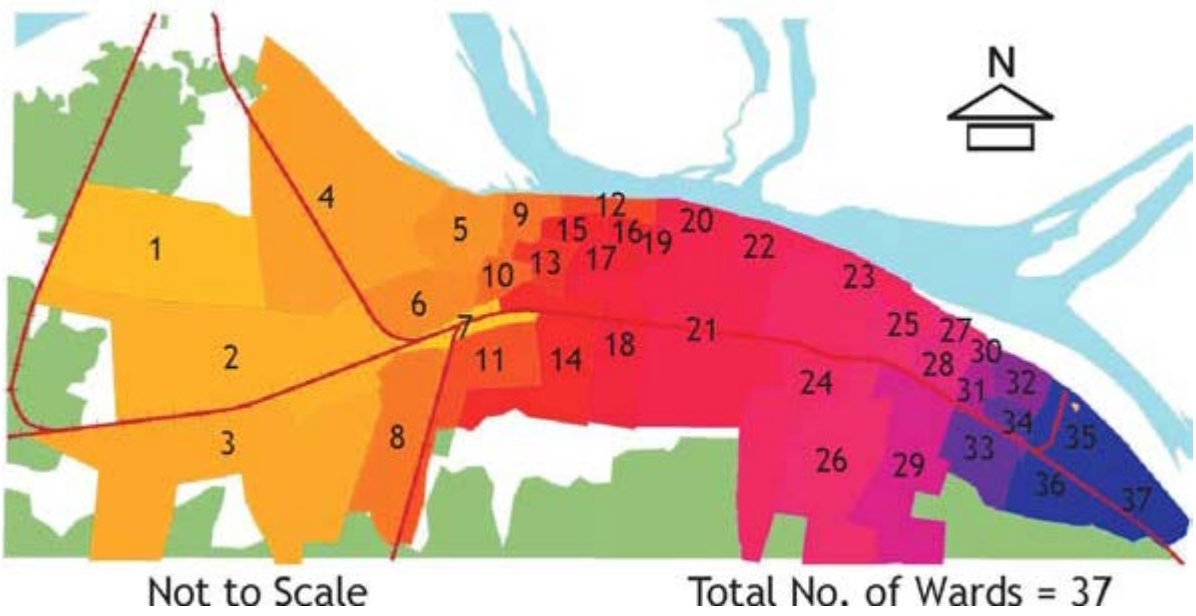
8.0 Annex B: The Patna Municipal Corporation (PMC)



Source: Patna Municipal Corporation

9.0 Annex C: Patna Ward Maps

Map 1: Patna with 37 wards (2001)



Source: Mandal and Dutta (2009: 9)

Map 2: Patna with 57 wards

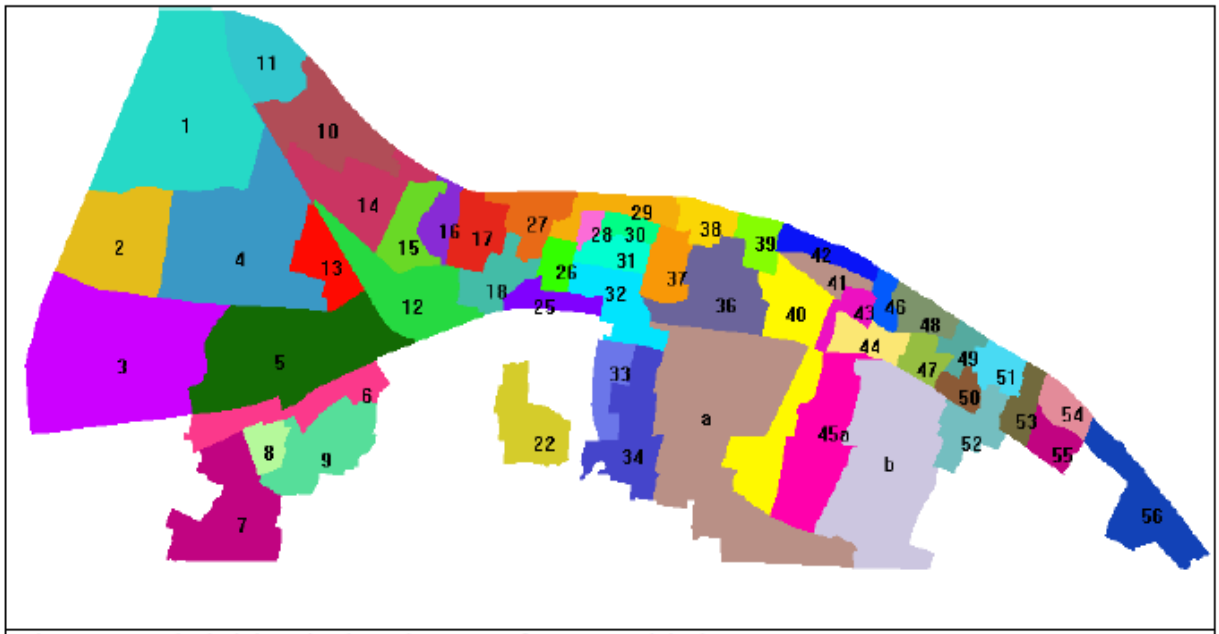
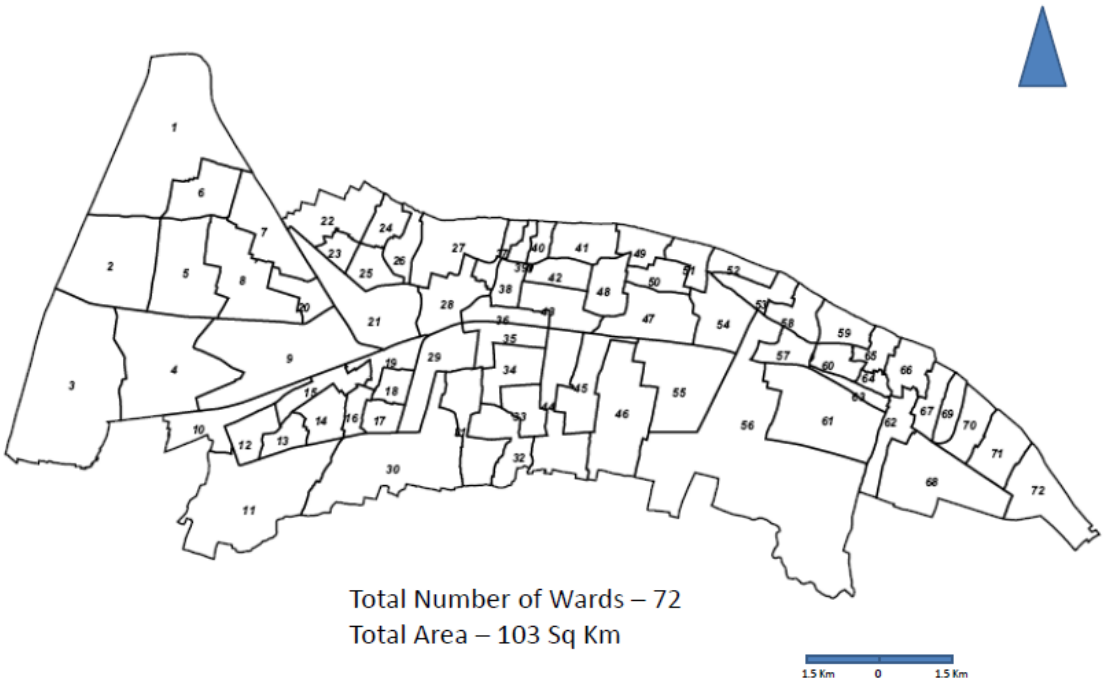


Figure 5: Ward administrative boundary map of Patna Municipal Area

Source: http://vikramshilasociety.org/groundwater/patgwmodel/pat_ch8.pdf

Map 3: Patna with 72 wards (2011)



Source: DFID Patna, 2011

10.0 Annex D: Bihar Crime Trends (1992-2009)

(a) Crime and rate of crime in Bihar (1992-2001)

Categories	1992	Crime Rate per 100000	1993	Crime Rate per 100000	1994	Crime Rate per 100000	1995	Crime Rate per 100000	1996	Crime Rate per 100000
Total crime	131007	147.2	125642	138.1	115622	124.4	115598	121.8	117017	NR
Murder	5112	5.7	4983	5.5	5098	5.5	5050	5.3	NR	NR
Dacoity	3287	3.7	2754	3	2677	2.3	2566	2.7	NR	NR
Robbery	3508	3.9	3030	3.3	3002	3.2	2678	2.8	NR	NR
Burglary	7694	8.6	7914	8.7	7156	7.7	6728	7.1	NR	NR
Theft	23443	26.3	20098	22.1	18399	19.8	17244	18.2	NR	NR

Categories	1997	Crime Rate per 100000	1998	Crime Rate per 100000	1999	Crime Rate per 100000	2000	Crime Rate per 100000	2001	Crime Rate per 100000
Total crime	117401	123.3	116045	NR	118648	120.2	124082	123.4	88432	106.7
Murder	5354	5.6	NR	NR	5116	5.2	5356	5.3	3643	4.4
Dacoity	2392	2.5	NR	NR	2153	2.2	2090	2.1	1291	1.6
Robbery	2931	3.1	NR	NR	2691	2.7	2896	2.9	2203	2.7
Burglary	5955	6.3	NR	NR	5260	5.3	4949	4.9	3233	3.9
Theft	14959	15.7	NR	NR	13759	13.9	14079	14	9701	11.7

(b) Crime and rate of crime in Bihar (2002-2009)

Categories	2002	Crime Rate per 100000	2003	Crime Rate per 100000	2004	Crime Rate per 100000	2005	Crime Rate per 100000	2006	Crime Rate per 100000
Total crime	94040	110.4	92263	106.3	108060	122.4	97850	108.9	100665	110.2
Murder	3712	4.4	3771	4.3	3948	4.5	3471	3.9	3249	3.6
Dacoity	1289	1.5	1221	1.4	1319	1.5	1212	1.3	1001	1.1
Robbery	2288	2.7	2463	2.8	2986	3.4	2374	2.6	2169	2.4
Burglary	3188	3.7	2986	3.4	3175	3.6	3117	3.5	3531	3.9
Theft	10145	11.9	10124	11.7	11113	12.6	10812	12	11752	12.9

Categories	2007	Crime Rate per 100000	2008	Crime Rate per 100000	2009	Crime Rate per 100000
Total crime	109420	117.9	122669	130.1	122931	128.4
Murder	3034	3.3	3139	3.3	3152	3.3
Dacoity	686	0.7	686	0.7	654	0.7
Robbery	1787	1.9	1592	1.7	1619	1.7
Burglary	3259	3.5	3414	3.6	3566	3.7
Theft	11795	12.7	13206	14	15221	15.9

NR = “No Records”

Source: http://ncrb.nic.in/

11.0 Annex E: Patna Crime Trends (1992-2009)

(a) Crime and rate of crime in Patna (1992-2001)

Categories	1997	Crime Rate per 100000	1998	Crime Rate per 100000	1999	Crime Rate per 100000	2000	Crime Rate per 100000	2001	Crime Rate per 100000
Total crime	5405	439.4	5728	NR	5631	433.9	5733	441.4	5617	329.1
Murder	232	18.9	243	NR	226	17.7	227	17.5	194	11.4
Dacoity	77	6.3	64	NR	69	5.4	82	6.3	52	3
Robbery	292	23.7	399	NR	296	23.1	331	25.5	340	19.2
Burglary	334	27.2	412	NR	349	27.3	338	26	324	19
Theft	1433	116.5	1460	NR	1412	110.3	1454	111.8	1344	78.7

Categories	1992	Crime Rate per 100000	1993	Crime Rate per 100000	1994	Crime Rate per 100000	1995	Crime Rate per 100000	1996	Crime Rate per 100000
Total crime	7235	640.3	5746	499.7	5285	451.7	5103	428.8	4971	NR
Murder	192	17	161	14	224	19.1	195	16.4	228	NR
Dacoity	24	2.1	16	1.4	63	5.4	74	6.2	54	NR
Robbery	218	19.3	156	13.6	176	15	157	13.2	223	NR
Burglary	400	35.4	401	34.9	471	40.3	331	27.8	306	NR
Theft	2101	185.9	1922	NR	1763	150.7	1354	113.8	1338	NR

(b) Crime and rate of crime in Patna (2002-2009)

Categories	2002	Crime Rate per 100000	2003	Crime Rate per 100000	2004	Crime Rate per 100000	2005	Crime Rate per 100000	2006	Crime Rate per 100000
Total crime	6100	357.4	6545	383.4	7597	445	7888	462.1	8432	494
Murder	244	14.3	260	15.2	282	16.5	239	14	206	12.1
Dacoity	46	2.7	59	3.5	63	3.7	74	4.3	48	2.8
Robbery	416	24.4	594	34.8	641	37.6	537	31.5	471	27.6
Burglary	395	23.1	377	22.1	510	29.9	415	24.3	531	31.1
Theft	1476	86.5	1367	80.1	1166	68.3	1002	58.7	1178	69

Categories	2007	Crime Rate per 100000	2008	Crime Rate per 100000	2009	Crime Rate per 100000
Total crime	8944	524	9024	528.1	8806	515.9
Murder	152	8.9	146	8.6	137	8
Dacoity	22	1.3	34	2	16	0.9
Robbery	328	19.2	265	15.3	179	10.5
Burglary	509	29.8	554	32.5	537	31.5
Theft	1223	71.6	1082	63.4	2247	131.6

NR = “No Records”

Source: http://ncrb.nic.in/

12.0 Annex F: Comparative Crime Trends – Tier I and II cities in India

NB/ Patna, Ahmedabad, Lucknow, and Indore are Tier II urban settlements (between 1-5 million inhabitants); Delhi and Mumbai are Tier I urban settlements (over five million inhabitants).

(a) 1992

Tier II cities

	Patna		Ahmedabad		Lucknow		Indore	
	Total	Crime Rate per 100000	Total	Crime Rate per 100000	Total	Crime Rate per 100000	Total	Crime Rate per 100000
Total crime	7235	640.3	19875	586.3	7684	452	10813	948.5
Murder	192	17	158	4.7	112	6.6	93	8.2
Dacoity	24	2.1	35	1	4	0.9	16	0.4
Robbery	218	19.3	131	3.9	119	7	89	7.8
Burglary	400	35.4	953	28.1	760	44.7	1108	97.2
Theft	2101	185.9	4935	145.6	2784	163.8	2881	252.7

Tier I cities

	Delhi		Mumbai		India	
	Total	Crime Rate per 100000	Total	Crime Rate per 100000	Total	Crime Rate per 100000
Total crime	33055	376.3	40979	315.2	1689341	194.7
Murder	418	4.8	487	3.7	40105	4.6
Dacoity	27	0.3	139	1.1	11308	1.3
Robbery	258	2.9	1219	9.4	26444	3
Burglary	1400	15.9	2708	20.8	127281	14.7
Theft	13190	150.1	15977	122.9	350582	40.4

(b) 2001

Tier II cities

	Patna		Ahmedabad		Lucknow		Indore	
	Total	**Crime Rate per 100000**	**Total**	**Crime Rate per 100000**	**Total**	**Crime Rate per 100000**	**Total**	**Crime Rate per 100000**
Total crime	5617	329.1	13496	298.7	7606	333.5	10263	626.2
Murder	194	11.4	90	2	112	4.9	78	4.8
Dacoity	52	3	18	0.4	24	1.1	2	0.1
Robbery	340	19.9	192	4.2	111	4.9	88	5.4
Burglary	324	19	695	15.4	600	26.5	758	46.2
Theft	1344	78.7	3588	79.4	2024	89.3	2401	146.5

Tier I cities

	Delhi		Mumbai		India	
	Total	**Crime Rate per 100000**	**Total**	**Crime Rate per 100000**	**Total**	**Crime Rate per 100000**
Total crime	49343	385.8	2896	177	1769	172.1
Murder	450	3.5	295	1.8	3620	3.5
Dacoity	35	0.3	61	0.4	6154	0.6
Robbery	545	4.3	406	2.5	1990	1.9
Burglary	2754	21.5	2863	17.5	1011	9.9
Theft	18067	141.2	1156	70.7	2528	24.6

(c) 2009

Tier II cities

	Patna		Ahmedabad		Lucknow		Indore	
	Total	Crime Rate per 100000	Total	Crime Rate per 100000	Total	Crime Rate per 100000	Total	Crime Rate per 100000
Total crime	8806	515.9	20726	458.6	10482	464.4	14101	860.3
Murder	137	8	83	1.8	82	3.6	94	5.7
Dacoity	16	0.9	16	0.4	11	0.5	1	0.1
Robbery	179	10.5	844	18.7	91	4	291	17.8
Burglary	537	31.5	751	16.6	549	24.2	823	50.2
Theft	2247	131.6	6283	139	2314	102.1	3481	212.4

Tier I cities

	Delhi		Mumbai		India	
	Total	Crime Rate per 100000	Total	Crime Rate per 100000	Total	Crime Rate per 100000
Total crime	45247	353.7	31262	191.1	2,121,345	181.4
Murder	444	3.5	217	1.3	32369	2.8
Dacoity	33	0.3	39	0.2	4586	0.4
Robbery	473	3.7	316	1.9	22409	1.9
Burglary	1566	12.2	2769	16.9	92070	7.9
Theft	20088	157	12009	73.4	324195	27.7

NR = “No Records”

Source: http://ncrb.nic.in/

13.0 Annex G: Disaggregated Patna Police Crime Data (2003 & 2009)

Police Jurisdiction	Murder		Dacoity		Loot		Kidnapping for ransom		Kidnapping		Theft	
	2003	2009	2003	2009	2003	2009	2003	2009	2003	2009	2003	2009
Pirbahore	10	4	2	1	18	6	-	-	11	8	90	40
Gandhi Maidan	2	2	5	-	39	8	1	1	2	7	106	71
Kadmakuan	13	8	4	1	32	5	3	-	4	9	88	50
Kotwali	7	3	-	1	56	4	2	-	9	5	200	109
Buddha Colony	6	4	2	-	38	6	2	-	1	10	73	44
Patliputra	8	3	-	-	30	13	2	1	2	8	37	31
Digha	10	4	7	-	7	2	1	-	9	13	15	14
Rajneev Nagar	-	1	-	1	-	11	-	-	-	2	-	18
Sachiwalaya	2	-	-	-	13	2	-	-	-	3	32	20
Gardani Bagh	16	5	2	1	33	6	1	-	8	5	77	31
Shastri Nagar	9	2	4	-	46	12	13	-	3	19	101	107
Sri Krishna Puri	9	-	5	-	37	5	1	-	2	5	64	51
Hawaiadda	-	1	-	1	-	3	-	2	-	2	-	15
Kankar Bagh	13	6	1	1	19	18	1	1	9	7	75	62
Patrakar Nagar	3	2	-	-	13	14	2	-	2	3	37	45
Jakkanpur	18	5	-	1	25	4	3	1	4	9	31	34
Parsa Bazar	7	7	-	-	-	-	-	-	1	11	11	18
Phulwarisharif	8	9	3	1	12	4	1	-	8	18	57	30
Beur	-	8	-	-	-	1	-	-	-	5	-	11
Janipur	2	2	-	-	10	01	-	-	2	1	3	8
Sultanganj	27	6	-	-	20	8	2	-	6	4	27	10
Alamganj	22	5	4	1	26	5	-	-	6	11	27	26
Khajekala	5	4	3	1	4	1	-	-	6	6	30	12
Chowk	12	4	1	1	15	6	-	-	3	9	27	23
Agamkuan	13	5	3	1	23	13	2	-	7	6	34	36
Mehdiganj	2	-	1	-	1	-	-	-	2	1	1	1
Bypass	-	2	-	1	-	1	-	-	-	-	-	11
Bahadurpur	-	1	-	-	-	2	-	-	-	3	-	11
Malsalami	4	11	1	-	3	-	-	-	1	6	10	23
Danapur	19	12	7	-	26	9	2	-	9	7	77	35
Khagaul	3	1	1	-	6	2	-	-	2	5	14	9
Rupaspur	-	2	-	-	-	6	-	1	-	3	-	8
Shahpur	5	2	1	-	1	-	-	-	1	4	9	7
Akilpur	1	2	-	-	-	-	-	-	1	2	-	1
Didarganj	2	4	2	2	4	5	-	-	1	3	14	18
Total	258	137	59	16	557	183	39	7	122	220	1367	1040

Source: Patna Police.

14.0 Annex H: Slum socio-economic profiles

14.1 Buddha Colony Thana Ke Aage basti

Buddha Colony slum is located in ward 26,[43] along the Western boundary road of the ward (Buddha Colony Road), opposite the Buddha Colony Police station. Beyond the Police station are the commercial areas of Dujra and Boring Canal Road. To the South the slum is adjacent to the B. D. Public School, a well-known Patna private school, to the East there is a stagnant pond, and to the North, a *dhobi ghat* (washing ground). Across the pond is the North Mandiri slum, which is described below. According to residents, the slum is 40-50 years old, and was founded as a squatter settlement on government land. Although there were half-hearted attempts by the authorities to evict this initial wave of squatters, these ceased following the great flood that affected Patna in 1975, when a number of affected families joining the existing community, which swelled to about 100 households. Indeed, the Patna Municipality subsequently built some drainage facilities in the slum in the early 1980s, although these were part of broader infrastructural development efforts for expanding middle class construction in the area. In the early 1990s, the B. D. Public School, which was initially built in the 1980s, began to expand, encroaching on slum areas, which led to significant tensions with the local slum community, and some families leaving. These tensions were exacerbated when the Patna Municipality built a *dhobi ghat* and a water pump on slum land in the late 1990s, which led to the demolition of some 50 houses, and the departure of the majority of the inhabitants as the slum declined to just 18-20 households.

Soon after being built, the *dhobi ghat* was acquired by the local Police, and was converted into living quarters for Police personnel. Further encroachment of the slum area by the B. D. Public School occurred in 2003-04, which reduced the number of households in the slum to 12. This was accompanied by violent clashes between the school authorities and Patna Municipal officials supported by the Police, which culminated in a shootout. The owner of the school, B. D. Rai, was arrested, although he was quickly released due to his close association with Laloo Prasad Yadav. Although School has principally sought to encroach on land occupied by another slum that borders it to the East, the Buddha Colony Slum has continued to be threatened, and unknown individuals recently came and took measurement, and told local inhabitants that they had vacate the land. Both the Police and the local ward councillor have assured slum dwellers that they will not have to leave, while the PMC claims to know nothing about this demand.

Buddha Colony Slum is made up of 12 households comprising 78 individuals; the average household size is therefore 6.5 persons per household. 53 percent of the slum population is female. 66 percent of the population is under 30 years old, with 18 percent between 15-29 years of age. Eight out of 12 households had been established in the slum for more than 20 years, while three households were established over ten years ago, and the final one between 5-10 years ago. Table 10 below provides the caste distribution by households. The largest caste group was the Kurmi (OBC II) caste, followed two other OBC II caste groups, the Yadavs and Kahars (OBC II). Scheduled Caste (SC) and Forward Caste (FC) were fewer in number. All the households in the slum were Hindu.

[43] Interestingly, residents claimed to be located in ward 24 rather than 26. This ambiguity likely stems from the fact that wards 24 and 26 were previously part of ward 5 under the 2001 administrative division (see Annex C), and the slum's traditional political patron, who had been councillor for ward 5, is now ward councillor for ward 24, and has clearly "kept" the slum residents despite the fact that they are no longer in his ward. Certainly, despite their physical location in ward 26, most residents seemed to be registered to vote in ward 24, and also carried out most of their administrative matters in this latter ward.

Table 1: Caste distribution by household in Buddha Colony slum

Caste Name and Group	Number of households
Kurmi (OBC II)	5
Kahar (OBC II)	2
Yadav(OBC II)	2
Paswan (SC)	2
Brahmin (FC)	1
Total	*12*

All the houses in the Buddha Colony slum were visibly precarious in nature, constructed out of straw, wood, and tarpaulin, and with earth floors (although two of the twelve households nevertheless described their dwellings as “pucca” rather than “kaccha” in the survey).

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Most households reported either owning their own home or else living on community land; only one household reported renting. Six households reported that they had no toilet and members defecated in the open, while three households claimed to have latrines with a pour flush. At the same time, nine households reported that male members defecated in the open, five households reported the same for female members, and eight households said that children defecated in the open. Ten households did not have any drainage. Eight households obtained water from the public stand post and three had piped water

supply. Half of the households had electricity while the other half used kerosene as their principal energy source.

Most men in the Buddha Colony slum were daily wage earners, and worked as rickshaw pullers or construction labour, while women were mostly employed as *dais* (domestic workers). Some male youths were working as drivers (including for the BD Public School buses). There were no public sector employees, although a member of the Brahmin household was a priest. All the males in the slum reported having at least completed primary school. Four households reported that their female members were illiterate whereas five claimed that they had completed their primary education. As table 1 below shows, monthly household income levels ranged from between 1,501-2,500 INR to over 15,000 INR, with the modal income level 5,001-7,500 INR. In terms of non-monetary assets, one household reported owning a television, while three reported owning bicycles, at least one of which had been obtained through a special government of Bihar programme providing bicycles to young women completing their schooling. Five households reported benefitting from Below Poverty Line (BPL) or Above Poverty Line (APL) ration cards, while one household was receiving a 1,000 INR monthly salary stipend from the Rajiv Gandhi Rashtriya government scheme for having set up a community crèche.

Table 2: Buddha Colony slum household incomes

Household Income Range (INR)	Number of households	Percentage
0-1,500	0	0
1,501-2,500	2	16.67
2,501-3,500	3	25
3,501-5,000	1	8.33
5,001-7,500	4	33.33
7,501-10,000	1	8.33
10,001-15,000	0	0
15,000+	1	8.33
Total	*12*	*100*

14.2 North Mandiri basti

North Mandiri slum is located in ward 26, and is part of the broader area of Mandiri, which is divided into “Outer” (also referred to as North), Middle, and Inner Mandiri (South Mandiri). The area is well known as an area where to rent cheap accommodation, for its transient and student populations, as well as its high crime levels. Up to 60 percent of the ward population are tenants, according to the local ward councillor, Mithaleshwar Kumar Yadav. The North Mandiri slum is located opposite the Buddha Colony slum across the pond, although it must be stressed that the residents of both slums consider themselves to be completely unrelated to each other. They are also separated by a small ice factory. While a part of the North Mandiri slum is across the pond, the other part extends Northwards towards the Bans *ghat* (crematorium) along Ashok Rajpath Road, and to the Kali *mandir* (temple) to the East.

According to residents, the North Mandiri slum was founded about 50 years ago, initially in a spontaneous and unregulated manner. During the late 1960s and early 1970s, the Patna municipality built the existing drainage and electricity infrastructure, however nothing has been provided since. The great Patna flood of

1975 led to an influx of affected families, and a transformation of the area, which had effectively been a rural outgrowth settlement. This led to a struggle over the land during the 1980s, and several houses in the settlement were burnt down as the land was formally (and forcibly) acquired by a group of local landlords, who then started charging local inhabitants rent. Many left as a result, and it is around this time that the area began to see an increasingly transient population coming and going. Partly as a result of this, Mandiri began to acquire an increasingly notorious reputation, and crime became a major factor in the 1990s and early 2000s. FGDs and interviews report that this had a major impact on women's safety and freedom of movement, significantly constraining it, while youth FGD participants labelled this period "the *Jungle Raj*". Following Nitish Kumar's accession to power in 2005, however, there was a major crackdown on crime; as a mixed FGD participant put it, "maximum criminals are behind bars, and the rest have shifted their bases elsewhere". Mandiri continues to see a transient population come through, including university students, as there are several youth hostels located in the area. At the same time, the majority of migrants are rural-urban migrants from within Bihar.

Table 3: Caste distribution by household in North Mandiri slum

Caste Group	Frequency	Percent
SC	5	12.82
ST	1	2.56
OBC-I	9	23.07
OBC-II	22	56.4
FC	2	5.12
Total	*39*	*100*

North Mandiri slum comprises 42 households.[44] The average household size was 4.7 individuals, and out of a total population of 199 individuals, 51 percent were women. 70 percent of the population is under 30 years of age, with 28 percent between the ages of 15-29, although it should be noted that 60 percent of these were female. 40 percent of households had been established in the slum less than five years, with 29 percent there less than two years. Table 2 above provides the caste distribution by household. Some 80 percent of the households surveyed belonged to the OBC I and II groups, with a predominance of the latter (and within this category, the three major subgroups were Yadav, Nonia, and Kurmi), while 13 percent belonged to the SC group. All the households were Hindu.

Like Buddha Colony slum, most of the houses in the North Mandiri slum were visibly precarious, constructed of straw, wood, and tarpaulin, and 34 out of the 39 households felt that their houses were "kaccha" rather than "pucca". 36 out of 39 houses were rented while three houses were self-owned. 90 percent of households obtained their water from public or private hand pumps or stand post, while the remaining ten percent had access to a private well, although this suffered seasonal water quality issues. Overall, 62 percent of households reported that their access to water was irregular. North Mandiri slum however had communal toilets (with pour flushing) which were used by 95 percent of survey

[44] Only 39 were surveyed because some of the tenants did not want to take the risk of upsetting their landlords (especially after one of the landlords interrupted one of the FGDs in order ask what the nature of our research concerned, and insisted on listening in for a while). Two were new migrant households, while the third was the household of an interviewee who felt that she had already participated enough in the research. Their absence from the survey does not alter its representative nature, however.

respondents. On the other hand, 31 percent of households reported not having any drainage facilities. 59 percent of households reported having some electricity connection (although only 28 percent legally), while the rest used kerosene.

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Mandiri is a major destination for migrants, both looking for better employment prospects and/or education (i.e. students). The area consequently includes individuals from varying backgrounds and with various occupations, ranging from professionals to daily wage labourers. A significant element of the local economy is in fact the rental business. 92 percent of those working in North Mandiri slum were involved in unskilled work, with some 56 percent of households in particular reporting a male member working as a rickshaw puller or a street hawker.[45] 81 percent of males in the slum had finished their primary education. Only 31 percent of females had done so, while 49 percent were illiterate. As table 3 below highlights, almost 60 percent of the households had a monthly income between INR 2,500-5,000.

In terms of non-monetary assets, five households reported owning a television, 12 reported owning bicycles (at least one of which was obtained through a government programme rewarding women who completed their matriculation with a free bicycle), and one owned a motorbike. 31 percent of households also reported benefitting from a Below Poverty Line (BPL), Above Poverty Line (APL), or Antyodaya ration card.

[45] Although the ice factory located next to the slum had five employees, none of these were from Mandiri but had been brought in from outside Patna by the owner of the factory. They lived on the factory premises, and did not socialize with inhabitants of North Mandiri slum.

Table 4: North Mandiri slum household incomes

Income range	Number of households	Percent
0-1,500	2	5.13
1,501-2,500	7	17.95
2,501-3,500	12	30.77
3,501-5,000	11	28.21
5,001-7,500	4	10.26
7,501-10,000	2	5.13
10,001-15,000	0	0
15,000+	1	2.56
Total	*39*	*100.00*

14.3 Mansoorganj Musahartoli basti

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The Mansoorganj Musahartoli slum is located in ward 69, in the Eastern part of the city. This is the heart of the old city of Patna, where the Muslim minority is concentrated. A major feature of the slum is a drain – that was in fact formerly a canal – which runs North-South, around which much of the settlement is clustered. To the West of the Slum is the Mandi Road, along which are clustered numerous shops selling spices, grains, and dry fruit. The road marks the boundary between ward 69 and 67. To the East there is a *humad* (scented wood chip) factory and a 100 year old Hindu temple, and further beyond, a dense concentration of old, dilapidated middle class housing. To the North is an area of

dense commercial activity, while to the South there is some chronically water-logged open land.

The Musahartoli was founded around 100 years ago, around a now-defunct canal which used to bring crops from the countryside into the city, but has since silted up and is now used as a drainage ditch. The settlement grew at a slow but steady rate, despite suffered significantly during the two great Patna floods of 1942 and 1975, although most of its growth has been through natural reproduction rather than migration. The Patna Municipality, which own most of the slum land, installed some water pumps in the 1990s. Part of the slum is claimed as private property by an individual called Devendra Prasad. His great-grandfather donated this land to two or three families in his employ, whose descendents – now amounting to 10-15 households – still reside there. Prasad began demanding the land back about 20 years ago, however, and this has been a significant source of conflict.

Table 5: Caste distribution by household in Mansoorganj Musahartoli slum

Caste Name and Group	Number of households
Musahar (SC)	63
Manjhi (SC)	12
Dhom (SC)	7
Pasi (SC)	2
Paswan (SC)	2
Malli (OBCI)	1
Mehtar (SC)	1
Yadav (OBCII)	1
Ramani (OBCI)	1
Total Households	90

Musahartoli slum is made up of 100 households comprising 528 individuals, for an average household size of 5.3 persons. 52 percent of the population is female, and 77 percent is under 30 years old, with 31 percent between 15-29 years of age. 86 percent of the population has been resident since birth, with a further 13 percent established in the slum for over 20 years. Table 4 above shows the caste distribution by household. 86 percent of the households belong to a scheduled caste, while the remaining 14 percent belong to OBC I and OBC II groups. Unsurprisingly, considering the name of the slum, the Musahar caste dominates (70 percent of households). All the households are Hindu.

Most of the houses in Mansoorganj Musahartoli were visibly extremely poor, although they were a built using a mixture of wood, brick, mud, and tarpaulin. Only two households reported having a toilet, and 98 percent of households resorted to open defecation, either in the drain cutting through the slum, or else in an open area between the slum and the neighbouring middle class community. The drain was however not very efficient, and frequently flooded during the rainy season, as one interviewee explained: “Drainage is a very big problem here. As you can see, the *nala* is very dirty, and during rainy season, it overflows and water enters the houses of the people living in the *basti*. In the summer season, under the scorching heat, the water in the nala evaporates and it starts to stink, which becomes unbearable. Conditions become such that you can’t stand here for more than 15 minutes without feeling sick, but people here have to live with that foul smell. They cook beside the *nala* and eat food. You can just imagine the

problem here." Twice during FGDs we were told about young children, a one year old and a six year old, drowning as a consequence of the flooding.

In terms of water supply, 87 percent of the households surveyed used public stand posts. Only one of the two in the settlement actually worked, and its supply was irregular, while the local well had dried up. Inhabitants had instead installed pipes in the drainage system in order to draw on rainwater overflow, which meant that the water was at best "sometimes good, sometimes bad". Over 95 percent of households reported having electricity, although only three percent legally.

Although the Musahartoli slum settlement lies close to a bustling market road, none of its inhabitants are employed there. 99 percent of the economically active population were involved in unskilled work, and moreover involved in daily wage work (as one FGD participants put it, "*roz ka kamana aur roz ka khana*" – "we earn everyday and our livelihood depends on that"). Almost 25 percent worked as rickshaw or thela pullers, street hawkers, or rag pickers, while smaller proportions cleaned drains for the Patna Municipality or were involved in agricultural work on nearby peri-urban land on a seasonal basis. Some women scavenged rubbish, both in the slum and nearby. Nobody from the slum worked at the *humad* factory. 99 percent of males in the slum had completed their primary schooling, but 77 percent of women were illiterate. As table 5 below shows, monthly household income levels ranged from between 0-1,500 INR and 10,001-15,000 INR, with the modal monthly household income between 2,501-3,500 INR. In terms of non-monetary assets, one third of households reported owning a television, but none owned a bicycle. Four households however reported owning pigs, one household owned a goat, and two households reported owning chickens or ducks. 68 percent of households reported benefitting from Below Poverty Line (BPL), Above Poverty Line (APL), or Antyodaya ration cards, and one household received a pension.

Table 6: Mansoorganj Musahartoli slum household incomes

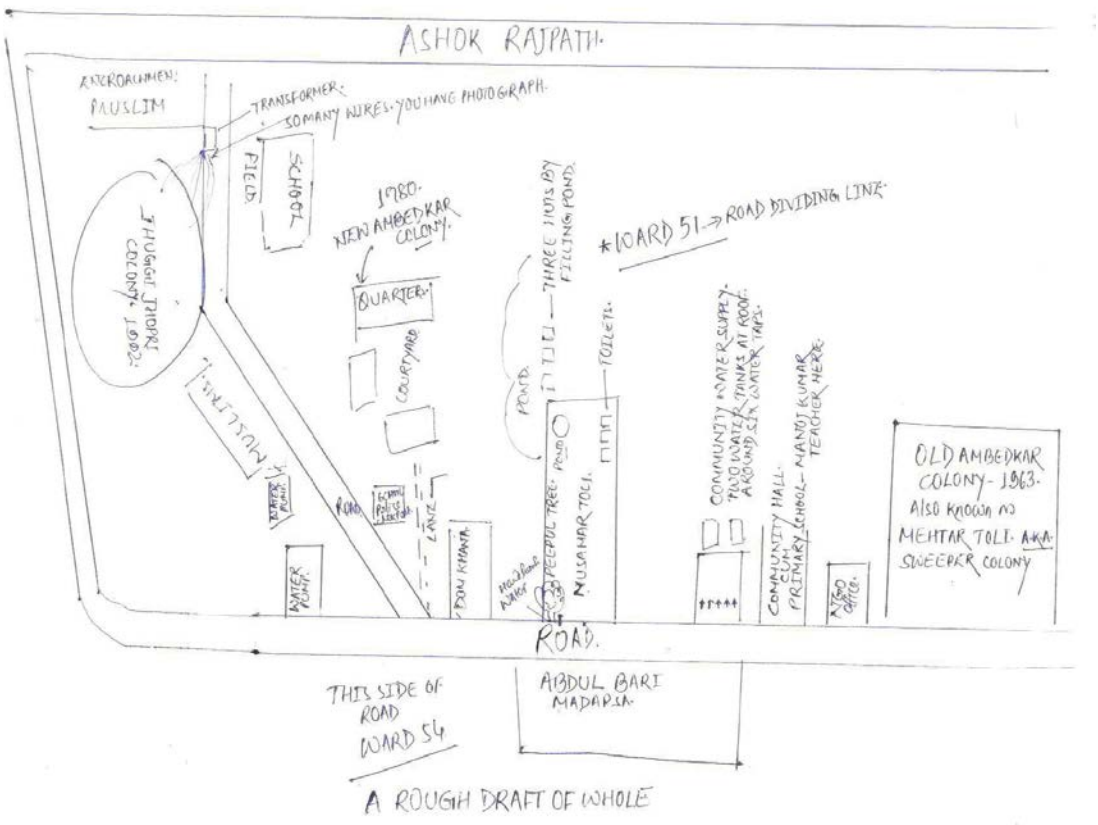
Household Income Range (INR)	Number of households
0-1,500	12
1,501-2,500	11
2,501-3,500	30
3,501-5,000	17
5,001-7,500	14
7,501-10,000	5
10,001-15,000	1
15,000+	0
Total	*90*

14.4 New Ambedkar Colony slum, Musahartoli slum, and Dhom Khana slum (Sultanganj area)

The New Ambedkar Colony, Musahartoli, and Dhom Khana slums are all part of the Sultanganj district located in ward 51. This ward is more or less in the geographical centre of the contemporary city, on the banks of the Ganges River, and is among the most densely populated areas of Patna. It has some water and drainage facilities dating back to the 1940s, most of which furthermore spill out into the river. It is furthermore located near the newly built and economically

important Gandhi Setu bridge across the Ganges. Sultanganj district lies towards the Southern end of ward 51, and also spills over into ward 54. The New Ambedkar Colony slum, where research was principally carried out, is a large, heterogeneous slum settlement which includes different sub-areas including Jhuggi Jhoppri, Quarter, and Khadpar, while the Musahartoli and Colony Dhom Khana are homogeneous and much smaller adjacent slum settlement that are closely connected to the New Ambedkar Colony in a variety of ways. Two other areas partially researched were the nearby Old Ambedkar Colony Mehtartoli slum (also known as Sweeper Colony), and Abdul Bari Colony slum (also known as the Madrasa colony). The former is an area that emerged very prominently in FGDs and interviews with inhabitants of the Musahartoli and the Dhom Khana, while the latter is a Muslim settlement that shares similar socio-economic characteristics to the Muslim households in the New Ambedkar Colony Jugghi Jhoppri. The first is located in ward 51, while the second is in ward 54, albeit just across the road from New Ambedkar Colony. Both of these areas were however primarily connected to other areas, although still within the general area of Sultanganj.

Figure 1: Sultanganj slum area



New Ambedkar Colony is named after the well political leader, B. R. Ambedkar, who led the cause against discrimination and the oppression of the scheduled castes in India. The settlement was founded on agricultural land on the outskirts of the city by the Patna Municipality around 50 years ago, specifically for a scheduled caste population, on land leased from the central Bihar government for 99 years. The settlement grew in stages (see figure 1 above). The area of New Ambedkar Colony known as the Quarter in the centre of the settlement was built in 1980 and is made up of three apartment blocks and 22 huts on the land surrounding these apartment blocks. This area used to be the New Ambedkar

Colony rubbish dump. The apartments were built specifically for employees of the Patna Municipal College and Hospital, although many others have since moved in. The area to the Northwest and West of the current settlement, today known as Jhuggi Jhopri, was donated by Laloo Prasad Yadav in 1992 to the employees of the nearby Saidpur plant, a factory that treated sewerage waste, so that they could build proper houses. Many families unconnected to the factory have since moved in, however. The Southwest of New Ambedkar Colony is an area known as Khadpur, which has concentrated poor Muslim households since the land was given to a group of Muslims by Laloo Prasad Yadav following their displacement from another area of Patna due to communal violence in 1992.

To the East of New Ambedkar Colony is the Musahartoli slum, which was founded over 30 years old, and is composed exclusively of Musahar scheduled caste. The settlement was visited by Nitish Kumar during the 2005 electoral campaign. The Dhom Khana next to it is a little older, some 45-50 years, and concentrates Dhom scheduled caste. Further to the East is the Old Ambedkar Colony Mehtartoli slum, which is approximately 40 years old, but was upgraded in the mid 1970s by the Bihar Awas (Housing) board under the Central *Parvirtak* (Change) scheme. Across the road to the South, in ward 54, the Abdul Bari Colony slum was built in the early 1990s as part of a Laloo government scheme called "Urban Basic Services for the Poor", specifically for poor Muslim families. New Ambedkar Colony, Musahartoli, and Dhom Khana slums are made up respectively of 303, 14, and 17 households (334 in total), comprising 1,643, 124, and 114 inhabitants (1,881 in total). The nearby Abdul Bari and Old Ambedkar Colony slums are respectively made up of 73 and 210 households, comprising 417 and 1,221 inhabitants.

Table 7: Sultanganj area slum population by gender

Slum	Males	Females	Percentage of females
Musahartoli	52	54	50.94
Dhom Khana	63	38	37.62
New Ambedkar Colony	735	637	46.43
Sub-total	*850*	*729*	*46.17*
Abdul Bari Colony	186	197	51.44
Old Ambedkar Colony Mehtartoli	536	487	47.61
Total	***1572***	***1413***	***47.34***

The average household size in the Sultanganj slum area consequently varied considerably, from a maximum of 7.3 in the Musahartoli slum to a minimum of 5.4 in the New Ambedkar Colony slum. As table 6 above highlights, the proportion of male and female populations also varied significantly in the different slums. 69 percent of the population of the combined Sultanganj slums is under the age of 30, with 31 percent between 15-29 years of age. In this latter respect, the Dhom Khana and Abdul Bari slums are outliers, with respectively 18 percent and 23 percent of their populations between 15-29 years of age, while both show higher than average proportions of 0-14 year olds compared to the other slums in the area. 90 percent or more households reported having been established in their slum either since birth or for over 20 years, with the notable exception of

New Ambedkar Colony, where 52 percent reported having been established between ten and 20 years ago, while a further ten percent reported having been established within the last five years.

Table 8: Caste distribution by household in Sultanganj slum area

Name of locality	SC	OBC-I	OBC-II	FC	Other
Mushartoli	12				
Dhom Khana	15				
New Ambedkar Colony	180	10	32	25	6
Sub-total	**207**	**10**	**32**	**25**	**6**
Abdul Bari Colony	59				8
Old Ambedkar Colony Mehtartoli	175				
Total	**441**	**10**	**32**	**25**	**14**

The caste composition of the Sultanganj slum is predominantly scheduled caste, around 84 percent, as table 7 above highlights. It should be noted, however, that the proportion of scheduled caste falls by ten percent to 74 percent if only New Ambedkar colony, Dhom Khana, and Musahartoli slums are taken into account, mainly due to the fact that the former slum contains 73 non-schedule caste households (29 percent of the total households). These include both backward (17 percent) and forward castes (10 percent). In terms of religious composition, 76 percent of households in the Sultanganj slums studied were Hindu, and 24 percent Muslim. For New Ambedkar colony, Dhom Khana, and Musahartoli slums by themselves the proportions are respectively 79 percent and 20 percent (Abdul Bari Colony slum is 100 percent Muslim, while Old Ambedkar Colony Mehtartoli slum is 100 percent Hindu).

The Sultanganj slums displayed significant variation in housing and infrastructure. Housing ranged from precarious straw huts to brick buildings to apartment blocks. Drainage infrastructure in the area was built in the 1960s, and had not been maintained or expanded as the area development, to the extent that 76 percent of households in New Ambedkar colony, Dhom Khana, and Musahartoli slums reported not having any direct connection to drainage facilities (Abdul Bari Colony and Old Ambedkar Colony Mehtartoli slums enjoyed much better connection, with respectively 45 percent and 84 percent of households connected to drainage). 90 percent of households in the Sultanganj slums stated that they obtained their water from public hand pumps (including some installed by the international NGO World Vision). 34 percent of households in the Sultanganj slums reported having their own toilet, while 38 percent had access to shared or community toilets. 17 percent did not have access to toilets and resorted to open defecation. 100 percent of households reported having electricity, although 99 percent did so informally, by attaching hooks to wires.

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Only one percent of men in New Ambedkar Colony, Musahartoli, and Dhom Khana slums were illiterate, and five percent had completed their middle school. 43 percent of women reported being illiterate, with the Mushartoli slum reporting 100 percent illiteracy among its female population. Interestingly, 11 percent of women reported having finished their schooling, including two who had graduated from university.

The economically active population of the Sultanganj slums was quite varied occupationally, although the overwhelming majority (82 percent) worked in unskilled jobs. Many inhabitants of Old Ambedkar Colony Mehtartoli slum worked for the Patna Municipal Corporation as drain cleaners, but in the other slum settlements there was a majority of daily wage workers. In particular, 24 percent of all men worked as sweepers, street hawkers, rag pickers, or rickshaw pullers. As table 8 below shows, household income levels in the Sultanganj slums ranged from between 1,501-2,500 INR to over 15,000 INR per month, with the modal income level 3,501-5,000 INR. There is significant variation across slums, however, with the Musahartoli slum on average the poorest, while households in Old Ambedkar Mehtar Colony slum were generally significantly better-off.

Table 9: Sultanganj slums household incomes

Slum	**0-1,500**	**1,501-2,500**	**2,501-3,500**	**3,501-5,000**	**5,001-7,500**	**7,501-10,000**	**10,001-15,000**	**15,000+**	**No. of households**
Musahartoli	1	2	4	3	2				12
Dhom Khana		1	4	5	4	1			15
New Ambedkar Colony	12	21	55	72	39	24	17	13	253
Sub-total	*13*	*24*	*63*	*80*	*45*	*25*	*17*	*13*	*280*
Abdul Bari Colony	2	16	18	20	8	1	1	1	67
Old Ambedkar Mehtar Colony	11	17	22	25	19	28	29	25	176
Total	*26*	*57*	*103*	*125*	*72*	*54*	*47*	*39*	*523*

In terms of non-monetary assets, 60 percent of households in New Ambedkar Colony, Musahartoli, and Dhom Khana slums reported owning a television, 55 percent owned a bicycle, and nine percent a motorcycle. 56 percent possessed a ration card, principally BPL cards (40 percent), and seven percent received a pension. Overall, Abdul Bari and Old Ambedkar Colony Mehtar slum were not very different in these respects.

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