

1 **Abstract**

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3 **Sustainable Urban Development in Tightly Constrained Areas: A Case**
4 **Study of Darjeeling, India**

5

6 The quantity of writing on sustainable urban development continues to
7 expand. Much of this writing, whether using a theoretical or empirical
8 focus (or both), takes a strongly normative tone, exhorting actors in
9 locations across the globe to make greater efforts to move development
10 trends in more sustainable directions. This normative work is of course of
11 vital importance, but in this paper we argue for more attention to the
12 context within which development takes place, particularly where that
13 context imposes severe, perhaps crippling, constraints on opportunities for
14 path-breaking actions. To explore this issue we introduce the case study of
15 the Indian hill station town of Darjeeling. We assess the sustainability
16 issues faced by the town (including rapid population growth, limited
17 availability of land, dynamic development arena) and analyse the ongoing
18 attempts by local governmental and non-governmental actors to deal with
19 those issues, within constraints of physical location and an intensely
20 contested politico-governance framework that we suggest are examples of
21 intense contextual constraints.

22

23 **Key words:** Urban planning, infrastructure, governance, development,
24 environmental constraints, sustainability, India

25

26

27 **1. Introduction**

28 The topic of *urban sustainable development* is one which has received a
29 great deal of attention over many years – even before such a term was
30 coined many authors have wrestled with the problems of balancing
31 economic, social and environmental issues when considering how best to
32 manage the growth of settlements across the world (WCED, 1987; Lélé,
33 1991; Ekins, 1993; Wheeler and Beatley, 2008). In recent years, of course,
34 this journal has hosted some of these debates, with a focus on
35 interdisciplinarity and inter-sectionality of approaches to economic,
36 ecological and social sustainability (Keivani, 2010a). Whilst many of these
37 contributions emphasise the “multi-faceted nature of the sustainability
38 debate” (Keivani, 2010b, p. 12) and acknowledge the “interplay between
39 social and technical solutions” (Williams, 2010, p, 131), there remains a
40 tendency to downplay, if not ignore, the constraints put in place by the
41 context in which development takes place. This context can, despite the
42 best efforts of policy makers, planners, NGOs and other stakeholders,
43 effectively limit the opportunity for the sort of path-breaking innovations
44 often necessary to achieve sustainable urban development.

45

46 To illustrate the nature of such binding constraints, this paper presents an
47 analysis of attempts at sustainability policy and practice within the
48 development structures of governmental and non-governmental
49 stakeholders in Darjeeling, India. Since its settlement as a centre for
50 summer administration by the British, Darjeeling has continued to develop
51 and expand, attracting migrants from across India, Nepal and Bhutan. As
52 the largest urban centre in the uplands of West Bengal and Sikkim,
53 Darjeeling acts as the financial, administrative and social confluence of the
54 region (Munsi, 1980; Portnov, Adhikari and Schwartz, 2007). Whilst

55 development has enabled Darjeeling to position itself as an essential
56 service centre, it has been less successful in addressing the demands of
57 sustainable expansion. Such roles place greater pressures on Darjeeling
58 compared to other uplands towns such as Gangtok, Shimla and similar
59 sized towns in Nepal¹. As a consequence the growth of Darjeeling
60 Municipality can be considered juxtaposed: it is a location that
61 simultaneously thrives on development but also struggles to manage this
62 process sustainably due to a complex interplay of dynamic political and
63 physical influences. Reflecting on the development constraints identified
64 within Darjeeling provides a practice-based assessment of the difficulties
65 involved in translating conceptual sustainable development discourses into
66 effective delivery. It also highlights that comparable constraints are visible
67 in a number of upland areas, i.e. Gangtok (Sikkim), Shimla (Himachal
68 Pradesh) or Shillong (Meghalaya)². In each of these locations access to
69 natural resources, population change and addressing the Indian growth
70 agenda have each placed constraints on the application of sustainable
71 development in the uplands. However, due to the importance of Darjeeling
72 as a regional centre of commerce and political power the barriers to
73 sustainable growth could be considered to be more acute. What is
74 apparent from the research literature is that the physical constraints
75 placed upon upland areas magnify the problems of planning for sustainable
76 urban development compared to India's megacities (Ghosh, 2012).
77

¹ Comparable debates over ethnic autonomy, state funding for upland development and the overexploitation of resources are visible in each these locations (Portnov, Adhikari and Schwartz, 2007).

² The framing of development may differ in Sikkim or Himachal Pradesh compared to the constraints placed upon Darjeeling. This does not though imply that growth is sustainable across these upland regions. For a more in-depth discussion of the development of other hill station see Singh and Mishra (2004), Bingeman, Berkes and Gardner (2004) and Peet and Watts (2004).

78 With reference to the wider development debates in India, and globally, a
79 study of the barriers to sustainable development in Darjeeling illustrate
80 that sustainability is not a linear process. As Wisner et al. (2004) and
81 Williams (2010) argue, sustainability offers an evolutionary interpretation
82 of growth. In Darjeeling, despite its smaller scale compared to other
83 locations, for example the capital of West Bengal state Kolkata, provides
84 insights into this complexity. Over the past thirty years the interplay of
85 economic, environmental and social activities has become accepted as
86 providing the foundations of sustainable development. This paper
87 suggests, as Wisner et al. and Middleton and O’Keefe (2001) propose, that
88 sustainability thinking can be reframed to contextualise development
89 alongside political and geographical constraints. This paper explores this
90 approach to debate whether macro-scale assessments of sustainability are
91 the most appropriate form of investigating in all contexts.

92

93 Darjeeling is a comparatively small settlement, in contrast to the
94 “megacities” which receive much focus in discussions of Indian
95 development (Rangan, 1997; Jain, 2003; Rajvanshi, 2003). However,
96 despite India’s increasingly urban population, most of its citizens live
97 outside megacities, so a renewed focus on other towns and cities in the
98 country may be required (as advocated by Wheeler and Beatley, 2008).
99 Evaluating the development of smaller or marginal urban areas provides a
100 microcosm of the interactivity of policy and practice within the politicised
101 narrative of sustainability. It is therefore prudent to suggest that new
102 forms of urbanisation in upland areas (and in smaller cities) are extending
103 the knowledge of what is justifiably considered sustainable urban
104 development. It should also be noted that unlike India’s large urban areas,
105 the Indian government, and indeed the West Bengal State, has not

106 legislated specific planning policy for hill stations across the nation. The
107 present study thus provides insights into how development pressures have
108 diversified where neo-liberal growth policies have been applied to more
109 marginal border and upland areas such as Darjeeling or Shimla (Bingeman,
110 Berkes and Gardner, 2004; Dréze and Sen, 2013).

111

112 Drawing on case study evidence generated in Darjeeling the paper
113 questions, through local stakeholder commentary, how sustainability has
114 been integrated into local planning practice, whether such a process is
115 possible and if, where policy exists, it supports effective and appropriate
116 development. It goes on to evaluate how the governance of Darjeeling and
117 its relationship with the West Bengal State and the Gorkhaland Movement,
118 major land owners and the citizens of the Municipality frame sustainability
119 debates and the subsequent implications of this complex relationship.

120

121 The paper concludes by suggesting that major contextual constraints limit
122 the scope for actors to take the kinds of major steps required to deliver
123 dramatically more sustainable development in the longer term. The paper
124 therefore argues that although conceptual understandings of sustainable
125 development are central components of a rational development debate,
126 context-specific constraints need to be considered more explicitly if
127 possibilities for smaller scale innovations are to make a positive
128 contribution to short and long term sustainability goals.

129

130 **2. Conceptualising, representing and understanding urban sustainable** 131 **development**

132 Whilst it is generally agreed that the broad parameters of sustainability
133 derived from the Brundtland report, i.e. “the prudent use of environmental

134 resources and inter- and intra-generational equity” (Williams, 2010, p.
135 130), still hold true it has also been observed in the pages of this journal
136 that “there is still a lack of consensus on precise conceptualisations”
137 (Keivani, 2010b, p. 14) around urban sustainable development. This is
138 perhaps in no small part because the most common of these
139 conceptualisations suggests that sustainable development involves the
140 balancing of three (or more) aspects³ of development to ensure that none
141 dominates. Typically these three are summarised as *economic*, *social* and
142 *environmental*, with *cultural* often included as a fourth (Kirkby, O’Keefe
143 and Timberlake, 1995; Basiago, 1999).

144

145 As noted by Campbell this type of conceptualisation has strong normative
146 tones, with a tendency for individuals (in this case planners) to position
147 themselves as advocates for one aspect or another – “In the end, planners
148 usually represent one goal – planning perhaps for increased property tax
149 revenues, or more open space preservation, or better housing for the poor
150 – while neglecting the other two” (1996, p. 297). This emphasis of one
151 aspect over another is in itself perhaps due to the difficulty inherent in
152 attempting to deliver all three – or, as some would argue, because the
153 growth (read capitalism) discourse is so strong that one either supports it,
154 or sets oneself up in opposition to it (Basiago, 1999; Walker and Salt,
155 2006). A lack of understanding of the inter-sectionality associated within
156 sustainability narratives can, in specific location, undermine the translation
157 of conceptual ideas into practice (Ekins, 1993; Jain, 2003).

158

³ These are also referred to, *inter alia*, as poles, factors, components, pillars, rings, and legs. For the sake of brevity we use *aspects* from here onwards.

159 Although competing needs are commonly used as justifications to modify
160 approaches to urban development, there is an assumption in some
161 quarters that growth occurs in cycles and that it will return to a state of
162 equilibrium. At this point the tenets of sustainable development will once
163 again be aligned to balance development needs with an understanding of
164 environmental and social capacity (Guy and Marvin, 1999; de Silva,
165 Kernaghan and Luque, 2012). Over the last thirty years though, there has
166 been seen a shift away from a stasis in development towards a constant re-
167 evaluation of the role performed by the urban realm. This leads to the view
168 that development should be seen as a constantly shifting arena where
169 hypotheses of balance are often invisible in development contexts (Boone,
170 2010).

171

172 Attempts to balance such competing sustainability interests within a
173 growth agenda have proved difficult to achieve in a number of locations in
174 India (Drèze and Sen, 2013). Questions are frequently raised querying
175 whether *sustainability* and *development* are compatible, especially in
176 marginal environments. Due to the divergent rationales that underpin each
177 Wisner et al. (2004) suggested that there is a fundamental complexity to
178 development agendas that often fails to balance growth and need. To
179 comprehend the complexity of these interactions it is necessary to
180 understand the shifting nature of property rights and access arrangements
181 in upland areas and how these are configured within the consciousness of
182 local and meta-scale institutions (Middleton and O'Keefe, 2001; Subba,
183 1999). Whilst access to resources provides recourse for individuals and
184 communities to shape development, government and economic
185 institutions may undermine the development process which then
186 potentially becomes unresponsive to change (Chettri, 2013).

187

188 Sustainable development is therefore conditioned by the interactions,
189 relationships and conflicts that arise from a perceived need for growth
190 (Middleton and O’Keefe, 2001). Whilst developers, politicians or
191 environmentalist hold solipsistic views, if an equitable approach to
192 development is to occur a more balanced process of integration is needed.
193 Although a number of actors hold obstinate viewpoints, sustainable
194 development thinking argues for a more reflective approach to growth. The
195 role played by different actors, coupled with the interplay with the socio-
196 economic environment, illustrates how shifts in responsibility (legislative,
197 communal or environmental) can impact sustainability (Jepson, 2001;
198 Vidyarthi, Hoch and Basmajian, 2013). Furthermore, there is a conceptual
199 assumption that development can be framed as a collective and equitable
200 process between actors. This implies that there is an overarching
201 responsibility to ensure that sustainability principles are visible within
202 development programmes (Munsi, 1980). However, this process can
203 become disjointed depending on how and whether investment objectives
204 are met; as evidenced in the continued development of informal or illegal
205 settlements across many parts of the “developing” (and “developed”)
206 world (Basiago, 1999).

207

208 A normative approach to development suggests that actors and
209 stakeholders should consider the sustainability credentials of a given
210 investment prior to implementation. However, such debates do not
211 necessarily reflect an understanding of sustainability principles, approaches
212 or outcomes (Walker and Salt, 2006). Discussions therefore rely upon
213 expertise and engagement between stakeholders to ensure that projects
214 move effectively from debate to implementation. Misappropriating

215 sustainability rhetoric could, however, be deemed as damaging
216 development in marginal locations as it may lead to inappropriate or short-
217 term growth strategies (Keivani, 2010b). Whilst it is important to improve
218 the visibility of sustainability within development debates, unless there is
219 an engaged understanding of its implementation value, rhetoric can in
220 effect outweigh the process of application.

221

222 Evaluating whether development in a given location can be considered
223 sustainable raises a number of questions focussing on the roles of the
224 economic, environmental and socio-political actors in this process. This
225 debates whether the relationship between actors and the environmental
226 resource base can be considered rational. It has also been argued that
227 debating sustainable growth as an equitable process is flawed due to the
228 complexity of influences that underpin development (Williams, 2010). Such
229 proposals can be considered to be intensified in geographically marginal
230 areas, e.g. Gangtok or Darjeeling, where the availability of land and its
231 geographical composition limit the viability of growth (Blaikie, 1985). In
232 response the politicisation of development debates have focused
233 predominately on social or economic issues undermining calls for greater
234 conservation of environmental resources (Middleton and O’Keefe, 2001).
235 Furthermore, the lack of a normative urban development process in upland
236 states, compared to cities in the plains, illustrates a potential gap in the
237 identification of specialised investment programmes focussed on physically
238 constrained landscapes.

239

240 Each application of sustainable development, especially in upland areas,
241 where the geo-political context appears to intensify anomalies in growth,
242 presents a spatial, temporal and socio-economic/politico-economic

243 perspective on development (Chettri, 2013; Portnov, Adhiakri and
244 Schwartz, 2007). This process has been identified within India's Himalayan
245 states exacerbating the tensions between growth and sustainable
246 development debates (Peet and Watts, 2004). Complexity exists between
247 each of these influences and is a factor in subsequent interactions between
248 current and future development (Wisner et al., 2004). Spatially,
249 development reviews the capacity of the physical environment and the
250 opportunities it provides to support development. Whilst growth agendas
251 are inherently temporal they do reflect the evolving relationship between
252 people and the environment (Chettri, Thapa and Shakya, 2007). The spatial
253 constraints of upland environments highlight the limitations of land
254 availability due to a lack of accessible and structurally appropriate
255 locations, at both a local and regional scale.

256

257 Another aspect of the sustainability literature relevant to this context is an
258 understanding of accountability for managing growth. Whilst development
259 is reacting to growing service and infrastructure needs there is a
260 concomitant need to retain a strong governance structure to ensure
261 investment is managed effectively (Wisner et al., 2004). The influence of
262 different socio-economic actors can though lead to confusion over who is
263 responsible for development. It can also be argued that development in
264 environmentally marginal locations is subject to greater variation in the
265 applications of legislative accountability because of the constraints placed
266 upon urban growth by the physical environment (Campbell, 1996).

267

268 Such constraints are rarely foregrounded in discussions about sustainable
269 development – there can be a tendency to assume that if *someone*
270 (whether this be planners, politicians, developers or other stakeholders)

271 did their jobs better, or were more focussed on aspects of development
272 other than economic growth, then (more) sustainable development could
273 be achieved. The following paper does not suggest that the normative
274 aspect of sustainable development literature should be downplayed, rather
275 it sympathises with the difficulty faced by professionals in locations around
276 the world who find themselves constrained by circumstances beyond their
277 (and possibly anyone’s) control.

278

279 To illustrate this point it is useful to return to the topic which opened this
280 section– the conceptualisations of sustainability, specifically the
281 *representations* of those conceptualisations. The “classic”
282 conceptualisation of sustainable development is the “Venn diagram”,
283 featuring three overlapping circles that represent economic, social and
284 environmental aspects of sustainable development, with the “intersection”
285 in the centre (see Figure 1).

286

287 *INSERT FIG 1 HERE: Figure 1. The classic “Venn diagram” of sustainability*

288

289 There are of course many other ways of representing sustainability (see
290 [http://computingforsustainability.com/2009/03/15/visualising-](http://computingforsustainability.com/2009/03/15/visualising-sustainability/)
291 [sustainability/](http://computingforsustainability.com/2009/03/15/visualising-sustainability/) for other examples), and whilst some do include reference
292 to a broader context, in the large part they focus on the three aspects of
293 sustainability and neglect what can be of critical importance – the context
294 within which development occurs in a particular locale, specifically the
295 constraints imposed by that context. This is, of course, partly because such
296 visualisations are intended to be both generalisations and, broadly,
297 universally applicable. This itself is troubling, given some of the “culturally
298 and geographically specific ideas” (Williams, 2010, p. 130) around

299 sustainability. This paper does not wish to add unnecessary complexity to
300 the debate around the imposition of models from the “developed” to the
301 “developing” world (Roy, 2009), rather it argues for an increased focus on
302 context/constraint in considerations of sustainable development.
303 Therefore, whilst it is important to reflect on the evolutionary
304 conceptualisations of sustainable urban planning, there is an equal, if not
305 greater validity in some locations, to concentrate on the practicalities of
306 implementing such notions in localised planning.

307

308 In the case of Darjeeling the paper moves on to discuss, the important
309 elements of context are *political* and *physical* (the latter in the sense of
310 intense constraints on growth) – see Figure 2 for an illustration. Clearly in
311 other cases, especially within India, the critical elements of context will
312 vary, but as the paper illustrates, without a sharp awareness of these
313 constraints exhortations for a more “sustainable” approach to
314 development can appear trite to those working on the ground (Jain, 2003;
315 Singh, Upadhyay and Mittal, 2010).

316

317 *INSERT FIG 2 HERE: Figure 2. Overwhelming contextual constraints can*
318 *prevent the pursuit of more sustainable development*

319

320 **3. Darjeeling**

321 The town of Darjeeling lies in the north of West Bengal in close proximity
322 to the Sikkim, Nepalese and Bhutanese borders. It is located at an elevation
323 of 2,050m (6,730ft) above sea level. The town was built by the British as a
324 so-called “Hill Station”, a base for the colonial administration in Kolkata,
325 capital of West Bengal State, to retreat to in the heat of the summer

326 months⁴.The value of Darjeeling as a hub of economic and social activity
327 remains part of the dominate rhetoric of the Municipality’s government
328 promoting its value locally and at a national level.

329

330 At the time of its development in the mid-19th Century, the town was
331 intended to have a population of no more than 10,000, with the sewage
332 and other infrastructure provision designed accordingly. The 2011 Indian
333 census found the population of the Darjeeling “urban agglomeration” at
334 that time to be 132,000 (Census of India, 2011), but as discussed below this
335 is apparently a substantial under-estimate, excluding as it does those living
336 in temporary or unofficial/illegal homes. The paper will also propose that
337 the provision of the town’s infrastructure has comprehensively failed to
338 keep pace with this growth in population. The situation is further
339 exacerbated by the substantial (up to 200%) growth in population during
340 the tea and tourist seasons, as migrant workers travel to the town to work
341 on tea plantations, act as drivers and porters, and support the town’s
342 tourism industry (Bhattacharya, 1992). This fluctuation in population,
343 unsurprisingly, has major implications on the capability of the town’s
344 infrastructure to cope.

345

346 The Municipality is one of six towns (the others being Kalimpong,
347 Kurseong, Matigara-Naxalbari, Siliguri and Phansidewa) in the District of
348 the same name and is the commercial centre of the West Bengal uplands⁵.
349 The area is supported economically by military spending, revenue derived

⁴ The position of executive power bestowed on Darjeeling by the British still permeates the identity of politicians and people in the uplands, and has been partially, at least, responsible for a section of the growing calls for autonomy from the West Bengal State.

⁵ Consequently, Darjeeling is placed under excessive development pressures compared to other upland towns, which do not act as the central administrative, economic and employment centre.

350 from tea gardens, seasonal tourism and taxation. Darjeeling's growth as an
351 area of economic prosperity is directly linked to the climatic and
352 geographical distinctiveness of the uplands.

353

354 The District of Darjeeling covers an area of approximately 3,149km²;
355 ranging from the plains of Siliguri to the hills of Darjeeling and Kalimpong.
356 It houses a population of over 1.8 million. Its location close to the
357 Nepalese, Bhutanese and Sikkim borders also makes the area strategically
358 important for India's military (Chettri, 2013). Darjeeling can thus be
359 considered to act as the primary urban conurbation of the region. As a
360 consequence its position more important than a "standard" urban centre
361 as Darjeeling transcends the economic and environmental boundaries of
362 the Municipality and holds a regionally important position for the growth
363 of upland West Bengal, Sikkim, Nepal and Bhutan.

364

365 Historically Darjeeling has seen successive waves of immigration to support
366 its economic growth. The resident population is therefore ethnically
367 diverse and polarised in a number of its social and political conventions
368 (Chakravti, 1997; Chettri, 2013). Demographic and ethnic diversity⁶ has led
369 to the development of a range of politically engaged ethnic groups within
370 the population of the District and Municipality of Darjeeling and within
371 their respective administrations. The most prominent of which are the
372 ethnic Gorkha people. Distinctions are identifiable between uplands and
373 plains populations, as well as illustrating additional diversity between

⁶ The demographic composition of Darjeeling includes a range of ethnic Nepalese, Bengali and Bhutanese populations. The most significant ethnic group are the Gorkhas of ethnic Nepali background. Other indigenous ethnic groups include the Limbu, Rai, Magars, Gurang, Tamangs, Lepchars, Bhutias, Sherpas and Newars (Tamang, Sakar and Hesseltine, 1988).

374 upland populations. The growth of the “Gorkhaland” autonomy movement
375 has been linked to the multi-cultural nature of the region’s population
376 (Acharya, 2009).

377 The growth of calls for a Gorkhaland autonomous political unit or state has
378 a long history in Darjeeling. During the nineteenth and twentieth-century
379 there were continued appeals for Darjeeling and the surrounding upland
380 areas to separate from British India and post-independence West Bengal
381 (Khawas, 2009). The granting of self-autonomy was proposed to enable
382 upland ethnic communities to gain a political voice through the transferal
383 of funding and legislative power from the centre of the state and nation to
384 Darjeeling and the periphery.

385

386 The rise of the Gorkhaland movement through the twentieth-century
387 focussed on the expression of the Gorkha people being ‘politically
388 voiceless, culturally insecure and economically deprived’ (Subba, 1999:302)
389 within the structures of Indian and West Bengali politics. One element of
390 this process was the notion that the British, and subsequently the West
391 Bengal government, had developed a discourse of governmental isolation
392 actioned through segregationist policies towards Darjeeling (Sarkar, 2012).
393 The outcome of which has been a circular process of calls for autonomy in
394 order address territorial, linguistic and ethnic marginalisation within the
395 decision-making process. Throughout the 1900s calls were made for a
396 ‘separate administrative set-up’ to create a Gorkha-led administrative unit
397 located within but legally autonomous from the West Bengal State (Subba,
398 1999). This shift in power was seen as, *a priori*, the most significant
399 mechanism to promote development. The establishment of the Darjeeling
400 Gorkha Hill Council (1988), the Gorkhaland Autonomous Authority (2011)
401 and the Gorkhaland Territorial Administration (2012) have acted as recent

402 conduits engaging the state in a dialogue regarding autonomy. The process
403 is on-going and has led to continued debate over the utility of such a
404 process in creating the called for autonomous political unit.

405

406 Attempts to establish sustainable development practices in Darjeeling are
407 also subject to a cyclical process of engagement and disengagement with
408 the West Bengal State (Ghosh, 2009). The perceived marginalisation of the
409 uplands by the state, as stated above and despite the passing into law of
410 the 74th Amendment Act⁷, has embedded dissenting voices within the
411 governance structures of Darjeeling Municipality, and its elected members
412 (Economic and Political Weekly, 2011). The implications of which manifest
413 themselves in the perception that an autonomous Gorkhaland State would
414 facilitate a more prosperous and sustainable Darjeeling (Munsi, 1980;
415 Chettri, 2013); there is little evidence though supporting this view within
416 the academy or practitioner literature. It is also possible that the prolonged
417 Gorkhaland agitation may be facilitating a weaker form of local
418 governance, as the local development issues are subsumed into broader
419 autonomy debates.

420

421 The outcomes of this research show that such debates have also been
422 influenced by a perceived marginalisation of local populations, resulting in
423 a lack of funding and services for the uplands by the West Bengal State, an
424 issue that will be returned to below. The ethno-political dynamism of the

⁷ The 74th Amendment Act (1992) established a statutory provision of Local Administrative Bodies as a third tier of administration in urban areas to ensure constitutional validity of urban local bodies (ULBs), and aims to broaden the range of powers and functions of municipal governments. Prior to the 1992 amendment local governments in India were organised on the basis of the 'ultra vires' principle [beyond the powers or authority granted by law] and the state governments were free to extend or control the functional sphere through executive decisions without an amendment to the legislative provisions (Mathur, 2007).

425 area can therefore be considered to have been a central driver of urban
426 development conflicts (Chakravti, 1997). Furthermore, the lack of positive
427 responses to growth from the West Bengal government has fostered a
428 sense of communal animosity towards the centre, which, some
429 interviewees reported, appears to be reciprocated. This political context, as
430 this paper goes argues, places a major constraint on the ability of the
431 Municipality's administration to deal with the issues it faces. A lack of
432 specific policy focussed on the development, and subsequent
433 management, of an upland hill station town is one element of this process.
434 The focus of this paper though is not to present an in-depth discussion of
435 the governance issues calling for an autonomous Gorkhaland state. Rather
436 it uses the political complexity of West Bengal-Gorkhaland to illustrate how
437 applying sustainability principles in Darjeeling is framed through four major
438 pillars: economic, environmental, social and political.

439

440 *INSERT FIG 3 HERE: Figure 3. Darjeeling Municipality, District and West*
441 *Bengal State*

442

443 A second major source of contextual constraint is the physical environment
444 of the Municipality. Darjeeling was deliberately built in the hills of northern
445 West Bengal to take advantage of the relatively cooler climate in
446 comparison with the plains. The town is built on a ridge (see Figure 4),
447 which severely restricts the room for physical expansion of the town's built
448 fabric. Further, it is surrounded by privately owned tea gardens, land
449 owned by the military, and protected forests, so even if the topography
450 was less hostile there is little scope for the town to expand. These
451 constraints have not stopped the population of the town growing, with the
452 inevitable result of ever higher density in the existing developed area,

453 leading to increased pressure on the already overstressed infrastructure
454 network.

455

456 *INSERT FIG 4 HERE: Figure 4 – The “Y” shaped ridge upon which Darjeeling*
457 *is built*

458

459 The political and physical context of Darjeeling sets the scene for an
460 evaluation of attempts by a range of governmental and non-governmental
461 actors to deliver a form of development which balances the social,
462 economic and environmental aspects of sustainability (Chakravti, 1997). It
463 is worth briefly reflecting on the choice of Darjeeling from another
464 perspective – that of scale. As noted in the introduction, discussions of
465 urban sustainable development tend to focus on larger cities – this is
466 understandable, given the impacts such settlements have on
467 environmental, social and economic sustainability indicators and, by
468 corollary, the potential for alternative development pathways to have
469 more substantial effects. This is particularly the case in countries such as
470 India, where the problems of unsustainable urban development in the
471 megacities of Kolkata, Chennai, Delhi and Mumbai are increasingly visible
472 that they command the majority of government and academic attention.
473 However, we must not forget that “small towns account for a significant
474 fraction of the total population in many regions” (Mayer and Knox, 2010, p.
475 1545).

476

477 In India there has been a dramatic increase in the number of towns
478 classified as urban, as the population density increases and the proportion
479 of the population engaged in agriculture declines (Ghosh, 2012). So whilst
480 the population of small towns such as Darjeeling is lower than those in

481 India's megacities, in aggregate the proportion of the population living in
482 such towns is large, and consequently the implications of non-sustainable
483 development similarly so.

484

485 **4. Method**

486 To evaluate the sustainability challenges faced by Darjeeling, a series of
487 open-ended interviews were conducted with practitioners, environmental
488 campaigners and government officials active in the planning and
489 management of the District of Darjeeling⁸. The breadth of interviews
490 included individuals who directly influence planning legislation and
491 practice, officers working for non-governmental agencies and
492 environmental campaigners engaged with upland issues. Figure 5 highlights
493 the background of each interviewee with specific reference to employers,
494 development responsibilities and the date and location of each interview.
495 The focus of the interviews varied depending on the specific expertise of
496 each interviewee, however, the overarching topics covered were: the
497 development issues facing the District/Municipality; the governance of
498 urban development in the area⁹; managing growth; local and regional
499 influences on development; and possible solutions to the development
500 issues faced by the District/Municipality. Interviews were conducted over a
501 seven day period (30th March – 6th April 2013) in Darjeeling, Kalimpong and
502 Siliguri. In the sections which follow these interviews are quoted directly

⁸ The paper does not draw on supplementary planning or development documents except where specific reference has been made to such documentation by interviewees. There was also a lack of supplementary evidence as a fire in the Municipal buildings in 1996 destroyed the archive of planning documents for the area. No digital copies were available. Interviewee commentary on the focus of development strategies is used throughout with triangulation from a number of interviewees.

⁹ Several interviewees made reference to the issues surrounding the calls for an autonomous Gorkhaland State. Where these issues are deemed relevant they are reflected in the text, however, a broader assessment of the complexity of the calls for autonomy is not attempted in the paper.

503 except in some cases where quotes could be considered controversial, so
504 have been anonymised¹⁰.

505

506 *INSERT FIG 5. HERE: Figure 5. Interviewees and planning responsibilities*

507

508 **5. Key sustainability issues in Darjeeling**

509 Interviewees repeatedly identified two main concerns affecting the
510 sustainability of development in the District and Municipality of Darjeeling.

511 Firstly, the degree of unchecked, informal and illegal development within
512 the Municipality – since independence the population of Darjeeling has
513 escalated to at least 130,000, with a number estimating that during peak

514 times the transient population increases this to between 300,000 and
515 500,000¹¹.. Secondly, the lack of adequate or efficient water, sanitation and

516 electricity infrastructure – key issues in terms of public health, equity of
517 access to services, and for the economic prosperity of the area, reliant as it

518 is on tourism. Furthermore, it was proposed that addressing sustainability

519 issues at a Municipality scale may actually limit the scope of investment
520 opportunities. Therefore to achieve sustainability in Darjeeling it may be

521 necessary to conceptualise, and apply sustainable development practices,
522 at a higher scale – whether this be the West Bengal state level, or, as

523 interviewee 5 suggest, at the North Eastern Council level (see below for
524 further discussion on this issues).

525

¹⁰ Throughout the following sections references to the numbered interviews, e.g. Interview 1, indicates commentary attributable to specific individuals. Where more than one number is shown this illustrates consensus between a number of interviewees.

¹¹ Accurate figures are very hard to obtain, as the transient population is not counted in the census, which is an issue in itself.

526 Individually each of these concerns would represent a major challenge to
527 administrations of the Municipality and District of Darjeeling as they
528 attempt to pursue more sustainable urban development – even if there
529 were no issues with infrastructure, controlling urban growth would be
530 difficult; and even if the population of the town stopped growing, provision
531 of infrastructure would remain problematic¹². However, when the two
532 issues interact, as they clearly do, they present a cumulatively even greater
533 test to the long-term future of the area. They also illustrate that dealing
534 with development pressures cannot be considered to be a self-contained
535 or static issue. Interactions between different influences indicate the
536 prevalence of a complex socio-economic relationship between people and
537 the environment in Darjeeling. They also suggest that an awareness of the
538 environmental-political characteristics of development is required to
539 ensure that growth is strategically planned at a Municipal scale.

540

541 The next three sub-sections discuss these two concerns sequentially before
542 summarising the overwhelming constraints faced by those promoting more
543 sustainable development in Darjeeling. Each section presents interviewee
544 commentary signposting the interplay between discussions of economic
545 growth, the changing polity of Darjeeling’s development context and the
546 constraints placed on expansion by the physical environmental of the area.
547 Within each section the complexity of development builds an evidenced
548 interpretation of growth which is subsequently extended conceptually, and
549 in terms of implementation, in sections 5.3 and 6.

550

551 ***5.1 Unchecked/unplanned/informal development***

¹² Reference was made to the 74th Amendment Act by respondents who blamed development management constraints on the West Bengal government’s reluctance to allow the Municipality to effectively manage its own resources.

552 As discussed above, there is effectively no space for the town of Darjeeling
553 to expand, but this has not stopped the population growing, with
554 consequent additional physical development. This is in large part due to
555 the economic “pull” to Darjeeling of the employment opportunities
556 available in the tourism and tea industries. Despite an active campaign led
557 the Chairman of the Municipality (Interview 6¹³) and local NGOs FOSEP and
558 Darjeeling Ladlenla Road Prerna (Interviews 2¹⁴, 3¹⁵ and 4¹⁶), highlighting
559 the vulnerability of the physical environment of the District as a whole,
560 development in Darjeeling has continued.

561

562 One interviewee highlighted the dissonance between the presumption on
563 the part of politicians and other stakeholders, including landowners and
564 the military, that development is needed to grow the economy, and the
565 inability of the physical environment to cope with growth (Interview 8¹⁷).
566 Darjeeling is thus exerting continuing pressures onto its natural resource
567 base which is considered by many as unsustainable (Interview 10¹⁸).

568

569 The Chairman of the Municipality (Interview 6) is acutely aware of the
570 problems that development causes, stating that ‘[we] should not have
571 heavy construction in an area like Darjeeling’. A further difficulty identified
572 by the majority of interviewees was the challenge of balancing the needs of
573 the current population with those of an expanding one, caused in part by
574 continuing migration to the town.

575

¹³ Interview conducted on 1st April 2013 in Darjeeling

¹⁴ Interview conducted on 1st April 2013 in Darjeeling

¹⁵ Interview conducted on 31st March 2013 in Darjeeling

¹⁶ Interview conducted on 1st April 2013 in Darjeeling

¹⁷ Interview conducted on 5th April 2013 in Kalimpong

¹⁸ Interview conducted on 4th April 2013 in Darjeeling

576 It was reported by Interviewees 8 and 10 that due to continual migration
577 from external locations the Municipality found it difficult to manage
578 environmental resources, as it could not limit migration so was unable to
579 meet the service and housing requirements of a growing population.
580 Interviewees (No. 1¹⁹, 2, 6 and 7²⁰) also stated that the lack of funding
581 allocated to Darjeeling from the West Bengal State government was
582 hindering progress. In part this is because the fluctuating population
583 (employed on a seasonal basis in tea gardens and the tourism industry) are
584 not registered as residents in the Darjeeling census, so West Bengal State is
585 not obliged to make financial resources available for additional service
586 provision. Informal population growth was also identified as undermining
587 the processes of tax collection, which pays for services, due to a
588 disproportionate number of migrant workers who may not pay tax in the
589 Municipality (Interview No. 4 and 6).

590

591 The growing population was therefore viewed by Interviewees 2 and 6 as
592 failing to bring with it a corresponding level of financial support for
593 Darjeeling – instead it creates an additional need and demand for services.
594 As a consequence the Municipality and District has found it hard to
595 implement an effective programme of control or formal urban planning, for
596 two main reasons: first, the lack of institutional capacity to
597 produce/implement a plan, and secondly, inadequate implementation of
598 the regulations that do exist to control development (Interview 9²¹). A local
599 architect evaluated this scenario (Interview 7) noting:

600

¹⁹ Interview conducted on 30th March 2013 in Darjeeling

²⁰ Interview conducted on 4th April 2013 in Darjeeling

²¹ Interview conducted on 6th April 2013 in Siliguri

601 [There is] no proper town planning in Darjeeling; no
602 expansion programme despite the town bursting at
603 the seams

604

605 Each of the ten interviews conducted noted that there was a lack of
606 funding allocated to urban planning in Darjeeling. Critics of the West
607 Bengal government argued that the continuation of such financial
608 constraints explicitly restricts the Municipality's ability to plan sustainably.
609 Although locations in the plains of West Bengal (i.e. Siliguri) have received
610 proportionally greater levels of funding for personnel and development
611 control systems, the same level of investment has not been replicated in
612 Darjeeling (Interview 1, 6 and 7). The Municipality also stated that despite
613 repeated requests for additional funds that the State government has
614 persisted in limiting its financial commitment to the planning of Darjeeling
615 (Interview 6).

616

617 This, along with the lack of qualified planners in the area, means that no
618 town planners are employed by the Municipality (Interviews 7 and 8). The
619 lack of financial or human capital is restricting the Municipality's capacity
620 to develop a masterplan for the town. A draft plan was reportedly
621 produced by the UK Department for International Development (DfID) '*at*
622 *some point*' in the recent past (Interviews 2 and 3), but was never taken
623 further. Awareness of the strategy was also limited within the Municipal
624 government, which itself was criticised for a lack of input from local
625 communities across the Municipality in the consultation stages (Interview
626 6).

627

628 The lack of a masterplan is exacerbated by the lack of capacity of the
629 Municipality to enforce regulations which in theory limit the height and
630 density of new buildings in the area (Interview 5²² and 8). Regulations put
631 in place at State level dictate that new buildings should not exceed 11.5
632 metres in height, but Interviewee 3 observed that politicians and officials
633 routinely give permission for buildings of up to 30m in height. This was
634 ascribed to corruption and weak governance, with the ability for a “fine” to
635 be paid to officials to “regularise” development which is not in accordance
636 with regulations (Interviews 10).

637

638 At the same time, a form of “communal collusion” occurs to legitimise
639 development not in accordance with another regulation – that requiring
640 1.2 metre “setbacks” for new buildings to ensure space between them for
641 health and safety reasons. It is possible for the developer/owner of a
642 building to obtain a “No Objection Certificate” from neighbouring
643 properties, which means that the Municipality has no legal rights to
644 enforce demolition or remove of an illegal structure (Interview 7).
645 Interviewees also explained the prevalence of the “you scratch my back,
646 I’ll scratch yours” mentality to the issuing of these certificates – effectively
647 a swapping of approval, so two or more neighbouring properties can
648 dispense with the setback requirement, reducing the space between
649 buildings and causing problems for access of emergency services. This has
650 resulted in an increasing prevalence of fires which cannot be controlled by
651 the town’s fire service, as the street network has become too narrow to
652 allow ingress of the fire engines.

653

²² Interview conducted on 5th April 2013 in Kalimpong

654 Interviewee 3 also noted that Darjeeling is in an area potentially subject to
655 earthquakes, so regulations were put in place by the British to limit
656 building to slopes of less than 30 degrees. Building now occurs on slopes of
657 60-70 degrees, with obvious implications for safety.

658

659 Further examples were raised where development policies were
660 interpreted as being undermined by local officials showing favour to
661 specific ethnic groups or businesses by allowing illegal homes to be built
662 (cf. Interview 10). The dominant rhetoric in the interviews (No. 2 and 4)
663 suggested that the legitimacy of governing the Municipality was considered
664 by some to be undermined by *ethnic* and *economic* interests, with
665 Interviewee 4 specifically noting the ongoing power held by tribal leaders
666 in Darjeeling. It was stated that a lack of transparency in how the
667 Municipality controls development (and how it is viewed publically)
668 weakens the trust between local people and elected politicians, thus
669 encouraging informal or unregulated development (Interview 8). The result
670 of this is the development of a complex set of interactions between the
671 Municipality attempting to control development, and collusion between
672 local people to facilitate growth (Interview 7).

673

674 As a consequence although planners, NGOs and politicians promote the
675 role of sustainable development there is little official policy to enforce such
676 rhetoric (Interview 6 and 8). Sustainable development practices have, as a
677 result, been actioned at a fairly small scale by local NGOs who have
678 attempted to raise awareness and engage local communities to think more
679 sustainably (Interviews 1, 2 and 4). The lack of formal input from the
680 Municipality, however, undermines the development of a critical mass of
681 exponents promoting sustainable development (Interview 3).

682

683 The result of these problems is a lack of mandated policy being produced
684 by the Municipality, and limited authority to enforce sustainable
685 development principles within the development arena, is that
686 development of Darjeeling continues in an unstructured manner (Interview
687 8). It was, however, considered possible to address this issue if the
688 Municipality were to receive either greater funding for planning activities,
689 or gain autonomy, from the West Bengal State (Interview 3, 6 and 10).

690

691 ***5.2 Infrastructure provision***

692 Interviewees working with community NGOs and the local administration
693 (No. 1, 2 and 6) highlighted a disconnection between the need for, and
694 provision of, service infrastructure and the availability of services across
695 the Municipality. Much was made of the rate of population growth,
696 although the main concern raised was the subsequent lack of investment
697 to upgrade the existing service infrastructure in line with that growth
698 (Interview 2 and 3). Furthermore, it was highlighted that the infrastructure
699 developed by the British in the 19th Century had received little additional
700 funding to extend its capacity (Interview 6). As a result there was a variable
701 provision of essential services across the Municipality, with the historic
702 core of the town being fairly well served, and the periphery much less so
703 (this difference described by interviewee 4 as “part of the colonial legacy”).
704 One interviewee who lived in the periphery had access to mains tap water
705 on the day of investigation after five days of service interruption –a
706 common occurrence for the periphery.

707

708 In addition to a focus on the core at the expense of the periphery, there
709 was a tendency to think short rather than long term, with one local NGO
710 officer (Interview 3) commenting:

711

712 '[infrastructure provision acts as a] band aid
713 process and doesn't offer long-term solutions'

714

715 This illustrates that despite the continuing growth of the Municipality,
716 services are acting beyond capacity. Consequently the viability of
717 Darjeeling to cope with additional development pressures is being
718 undermined. A number of factors were identified as influencing this
719 process, the most frequently noted were: a local population
720 disenfranchised from the structures of planning, corruption in both
721 development and political investment structures, and a lack of appropriate
722 policy (and funding) to programme development. Some land owners,
723 specifically the military and tea gardens, hold substantial control over
724 access to landscape resources and, subsequently, the provision of services.
725 Such a tiered structure of access led to calls from interviewees for greater
726 political intervention to facilitate service parity for the general population.
727 More specifically, water supply and quality, provision of electricity and
728 clear and solid waste disposal were noted as being major issues.

729

730 *5.2.1 Water provision*

731 A number of interviews (No. 2, 3 and 5) discussed the complexities of water
732 ownership in the area noting that the major landowners (the military and
733 tea gardens) restricted access to water sources (lakes, river channels and
734 upland reserves) exacerbating the need to buy-in water. Interviewee 4 also
735 noted the incompatibility between mainstream policy in India and the

736 specificities of life in the hills – the “Million Wells” programme was a
737 flagship anti-poverty programme in India, but in the Darjeeling area
738 freshwater springs, not wells, are the principal source of water.

739

740 Moreover, the impact of water shortages increases in the tourist season
741 when the population rises to an estimated 300,000-500,000 (Interviews 3,
742 6, 7 and 8). Water quality was also raised as a major sustainability issue.
743 Several interviews (No. 6, 8 and 10) stated that the impacts of informal
744 development coupled with transport pollution and existing water intensive
745 uses (i.e. growing tea) decrease the quality of the water across the District.
746 Again, this limits the availability of potable water in the area, increasing the
747 drive to invest in an external water supply.

748

749 One alternative to this approach proposed the instigation of, for example,
750 more effective and small scale rainwater harvesting. Interviewee 4 noted
751 the potential for landowners such as the military, who manage large tracts
752 of land, to take the lead in this regard. It was, however, reported from
753 interviewees that they appear to have little inclination so to do. Instead,
754 the Municipality has invested in an expensive infrastructure scheme to
755 pump water up from the valleys.

756

757 *INSERT FIG 6 HERE: Figure 6. Transporting water in Darjeeling (Source:*
758 *author)*

759

760 As noted above, outside the core of the town, the impact of poor provision
761 is seen in the majority of households in the Municipality where water
762 supplies are intermittent, becoming increasingly unpredictable during dry
763 months and the tourist season (Interviews 2 and 3). One impact of this has

764 been the need to import water from the valleys and transport it to upland
765 areas (see Figure 6); a process described in many interviews as
766 unsustainable (No. 1, 2, 8 and 10). Interviewee 5 was also of the opinion
767 that in the town of Kalimpong, part of Darjeeling District, there should be
768 enough water to meet the population's needs, but there were many leaks
769 in the pipe infrastructure which there was little interest in repairing
770 because "a shortage of water is a good way of making money". Predictably,
771 the lack of formal water access across the District impacts most severely on
772 the poor, who are forced to obtain water wherever they can (see Figure 7).

773

774 *INSERT FIG 7 HERE: Figure 7. Collecting water from a hydrant in the main*
775 *square of Darjeeling town (Source: authors)*

776

777 *5.2.2 Electricity supply*

778 Due to the remoteness, lack of space and steep terrain of Darjeeling
779 Municipality the generation and supply of electricity is difficult. Whilst
780 investment in water generated power has occurred there is still an
781 intermittent supply requiring the local population to rely on generators or
782 illegal power connections for a consistent supply (Interview 10). A lack of
783 investment in infrastructure was identified as being central to this process
784 along with the continually increasing population placing pressures on a
785 limited system. A further issue raised linked the lack of investment with
786 population change. With much of the increasing population living in
787 informal/unregulated development, and/or not permanently resident in
788 the town, the West Bengal State has resisted providing funding for new
789 electricity infrastructure because census statistics showed only a small
790 *official* rise in population (Interview 6, 8 and 10). This results in increasing

791 electricity prices as people attempt to legally, and in a number of areas
792 illegally, gain access to electricity supplies (Interview 2 and 3).

793

794 *5.2.3 Waste disposal*

795 A number of interviewees outlined the obvious issue that the growing
796 population increases the need for solid (i.e. rubbish) and liquid (i.e.
797 sewage) waste disposal facilities (No. 1, 2, 4 and 6). However, due to the
798 lack of investment in upgrading and increasing the capacity of waste
799 infrastructure, Darjeeling Municipality is failing to cope with the level of
800 waste generated. The capacity of the existing sewage system, designed by
801 the British at the time of the town's foundation to meet the needs of
802 10,000 people, has been surpassed many times over, with several
803 interviewees stating that "nobody knows" where sewage now goes –
804 apparently into watercourses, with obvious implications for health
805 (Interviews 2 and 4). Similarly, sewage from new buildings goes straight
806 into open sewers/drains around the town.

807

808 Solid waste disposal is also becoming a major issue. There is insufficient
809 capacity within the Municipality at present to manage the disposal of solid
810 waste, so rubbish is despatched down "the chute", effectively an enormous
811 pile of rubbish running down the side of the hill at one end of the town
812 (interviewees 2 and 4; see Figure 8)

813

814 *INSERT FIG 8 HERE: Figure 8. The rubbish "chute" in Darjeeling town*
815 *(Source/Copyright: Darjeeling Ladlenla Road Prerna. Used with permission)*

816

817 In many other parts of India informal waste recycling is a substantial source
818 of employment (cf. Gill, 2010; Jain, 2003), and NGOs have tried to promote

819 a similar solution in Darjeeling (interviewees 1, 2 and 3). The Municipality,
820 in contrast, are keen to develop a recycling treatment plant, with an
821 obvious cost, which would also need additional road infrastructure to
822 service it (Interview 6). There is at present little hope of the size of
823 investment necessary to facilitate such development. Nevertheless,
824 Interview 7 stated that “every five years” projects to implement solid and
825 liquid waste management were designed by expensive consultants from
826 Delhi, Bengaluru or Mumbai, “with no knowledge of the local context”,
827 meaning that implementation of these projects was impractical. One
828 suggested response to the impact of the lack of waste infrastructure was to
829 situate the dialogue for improvement at the regional level. However, it was
830 suggested that, once again, such a debate would be subject to the
831 marginalisation of the Municipality by the West Bengal State who appear
832 to characterise the development issues in Darjeeling as ‘rural’, and
833 therefore less politically important, despite its role as a regional centre.
834 Interviewee 5 stated that he had suggested that the Darjeeling area be
835 included in infrastructure/disaster planning carried out by the North
836 Eastern Council – the agency which manages economic and social
837 development in the States of Arunachal Pradesh, Assam, Manipur,
838 Meghalaya, Mizoram, Nagaland, Sikkim and Tripura (North Eastern Council,
839 2013). This request was turned down “for political reasons”.

840

841 Across the different types of infrastructure provision, there appeared to be
842 a substantial gap between the types of low-cost solutions (rainwater
843 harvesting, small scale recycling) advocated by NGOs and the solutions
844 pursued by the Municipality (water pumped up the valley from rivers, large
845 scale recycling plant). This focus on large scale, “flashy” schemes by
846 politicians is perhaps a universal problem, but is a facet of the powerful

847 political context which constrains opportunities for more sustainable
848 development in Darjeeling (Interview 10).

849

850 ***5.3 The overwhelming constraint of context?***

851 The preceding sub-sections discussed a range of issues identified by
852 interviewees, centred on uncontrolled population growth (with
853 concomitant development) and severe problems with infrastructure
854 provision. If these issues are not addressed then the future development of
855 Darjeeling will take it beyond the carrying capacity of the natural
856 environment to support and supply services for the local population.
857 Interviewees also identified possible solutions to some (though not all) of
858 the issues in Darjeeling, so why is it that they persist? This paper argues
859 that the twin contextual constraints of (a) a lack of room for expansion of
860 the town, and (b) intense political contestation in the area; prevent more
861 sustainable approaches being implemented.

862

863 The location of Darjeeling on a ridge in the mountains of northern West
864 Bengal, surrounded by privately owned tea gardens, military owned land
865 and protected forest areas, means there is essentially no land available for
866 expansion. As discussed above, this has resulted in building at ever higher
867 densities and heights, on ever steeper slopes, placing additional pressure
868 on infrastructure and creating potential safety problems. One interviewee
869 indicated that he had developed plans for satellite towns in the areas
870 around Darjeeling Municipality, on tea gardens which are less economically
871 viable and hence potentially available to purchase (Interview 7). These
872 plans were rejected by administrators in the Municipality and District due
873 to the lack of infrastructure to serve such towns, and the lack of funding to
874 provide such. This lack of funding was ascribed by virtually all interviewees

875 to the second, perhaps even more constraining, contextual issue – the
876 political contestation in the area (Interview 6 and 10).

877

878 Interviewees (No. 8, 9 and 10) told us that the Municipality of Darjeeling is
879 a marginalised town within a marginalised district, within a marginalised
880 state. It was felt that although the years of Communist rule in West Bengal
881 (1977-2011) had “changed the focus of India away from Kolkata [the State
882 capital]” (interviewee 5), at the State level, much influence and funding is
883 (perhaps naturally) still focussed on Kolkata, and it was reported that
884 within the District of Darjeeling, Siliguri, the town in the plains, dominates.
885 This led to very strong feelings, with one NGO fearing that if present trends
886 continued ‘our [Gorkha] history will perish’. Strong sentiments were
887 evident in a number of interviews (No. 3, 5 and 10) stating that there is a
888 clear dislocation between the needs and priorities of Darjeeling as a
889 Municipality and those of the West Bengal State and Darjeeling District.
890 This manifests itself in a fissure between State and District mandated policy
891 that is considered unrepresentative of the needs of Darjeeling Municipality
892 (Interview 6 and 7)²³.

893

894 In addition to policy which is insufficiently cognisant of the area’s needs,
895 the main effect of this marginalisation is a financial one – the Municipality
896 is perennially short of funds for infrastructure and the recruitment of staff
897 needed to prepare and implement urban planning strategies. In relation to
898 the latter, even if the Municipality can afford to take on new employees,
899 the State government has to approve all new recruitment, something
900 which they are apparently both reluctant and slow to do (Interview 6).

²³ The historical contextualisation of the calls for an autonomous Gorkhaland political unit outlined in Section 3 frame these tensions.

901

902 Frustration at the political marginalisation has manifested itself in the
903 growing discontent with the West Bengal State and led to the periodic calls
904 for a federal separation of the “Gorkhaland” hill area, centred on
905 Darjeeling Town (Munsi, 1980). Within this debate the lack of State funding
906 is seen as a clear indication of the separation of development objectives
907 between the state and Municipality. The most recent of these led in 2011
908 to the creation of the Gorkhaland Territorial Administration, a semi-
909 autonomous body within the State of West Bengal. Interview 10 raised this
910 issue on several occasions indicating that a growing resentment towards
911 the West Bengal State is increasingly manifesting itself across the uplands.
912 The degree of autonomy remains insufficient in the view of a significant
913 proportion of interviews, and indeed the wider population as several
914 demonstrations demanding full autonomy were witnessed during the
915 process of data collection.

916

917 At noted in section 3 this paper does not wish to comment on the desire
918 for the people of the Darjeeling hills for independence, due to the
919 complexity of the politicised nature of Darjeeling and the uplands (Subba,
920 1999; Sarkar, 2012). It is though of equal important to note that continued
921 demands for autonomy cause, according to interviewees, two on-going
922 problems.

923

924 Firstly it limits opportunities for a positive dialogue to occur between the
925 Municipality, the District, the State of West Bengal and major landowners
926 (Interview 8). This means that Darjeeling Municipality has thus far had a
927 limited influence on such plans as there are for future strategic
928 development, so policies in place at the State level do not reflect the

929 particular circumstances of the hill area. Secondly, one interviewee
930 discussed how sometimes “the focus on autonomy takes over all other
931 considerations – there is a view that statehood will solve all the area’s
932 problems” (Interview 4). This pursuit of an autonomous federal unit within
933 the Indian Union was seen as the primary aim of local politicians, meaning
934 that, in the opinion of one NGO interviewee, they have not done as much
935 as they could to encourage, for example, participation in governance by
936 local people.

937

938 These issues notwithstanding, it seems that the demands for autonomy in
939 the area are unlikely to subside in the immediate future – as one local
940 politician told us, “you have to talk about Gorkhaland if you want to exist
941 politically in Darjeeling”. This means that, returning to the
942 conceptualisation of constraining contextual factors limiting the scope for
943 more sustainable development (see Figure 2), the tight physical constraints
944 on growth in Darjeeling together with the political problems discussed
945 hereto, effectively limit the scope for path-changing efforts in the town.
946 This illustrates the difficulty in identifying how the various governmental,
947 NGO and private actors seeking to effect change can be successful,
948 suggesting that Darjeeling will continue on its present, unsustainable, path.
949 However, it is important to make a contribution to suggest how Darjeeling,
950 or areas with similar powerful constraints, might ultimately break what has
951 been called in this journal “a vicious cycle of poverty, sociospatial
952 exclusion, irregular land use patterns and slum formation in
953 environmentally sensitive areas” (Keivani 2010b, p. 11). As has also been
954 observed in this journal, working towards more sustainable urban
955 development requires that we as academics, practitioner and researchers
956 answer “two key challenges... the challenge of ‘the vision’: do we know

957 what “the sustainable city” is? and the challenge of change: do we know
958 how to bring about “sustainable urban development”?’ (Williams 2010, p.
959 128-129).

960

961 Firstly of course, the discussion presented in this paper is focussed not on a
962 city but on a comparatively small town – but, as noted above the majority
963 of the world’s population continues to live outside of megacities, so there
964 is a need to consider sustainability at a range of settlement scales.
965 Secondly, these questions are clearly very well put, but for the purposes of
966 this paper it is important to nuance the second by adding “...*within present*
967 *constraints*”. There is clearly an important role for neutral observers to
968 encourage long-term “free” thinking and to try and break out of existing
969 paradigms, but we also believe that the academy and journals, such as this,
970 have an important role in suggesting evidence-based solutions which might
971 be implemented in the short to medium term. To that end, in the following
972 penultimate section the paper tentatively suggests ways in which changes
973 could be made in Darjeeling *within* the present constraining context. As will
974 be seen, these suggested changes are of broader relevance, and could be
975 seen as representing good practice for other areas where governance
976 tends to be top-down, and where the institutional capacity for top-down
977 urban planning and governance is lacking.

978

979 **6. Is there a way forward for Darjeeling?**

980 Darjeeling was established by the British colonial rulers as the summer
981 administrative centre for the State of West Bengal, with an intended
982 population of 10,000. The town now has a population in excess of ten
983 times this, which increases by more than 200% when seasonal populations
984 are taken into account. To cater for this hugely increased population a

985 great deal of informal and unregulated built development has taken place,
986 putting great strain on the infrastructure of the town. Darjeeling's
987 infrastructure is now considered to be unable to cope with such an
988 increase, with resulting patchy provision of water and electricity and
989 solid/liquid waste being desposed of in natural resources around the town.
990 New strategies are therefore needed to help plan and accommodate the
991 existing and growing population of the town in a more sustainable way and
992 develop more sustainable approaches to infrastructure provision.

993

994 Despite the complex interactions and inter-sectionality of the barriers to
995 sustainable development noted previously, it is possible to propose
996 alternative approaches to urban development in Darjeeling that could
997 promote a more dynamic, and proactive, process of urban sustainable
998 development. In light of this the following recommendations are made
999 with the caveat that institutional change, as reflected in the political
1000 context and attitude of key stakeholders is at best slow, and in practice
1001 static in Darjeeling. This potentially limits the application of sustainable
1002 development in practice but must not restrict the ability of agencies to
1003 continue to try and effect economic, social and environmental change.

1004

1005 The key recommendation of this paper is to suggest that there is a need to
1006 move from a top-down, professional/investment-led approach to planning
1007 and infrastructure provision towards a bottom-up, community-led
1008 approach. The successful application of the 74th Amendment Act provides
1009 provision for such a process, however, in reality its application is subject to
1010 a number of the socio-economic and political influences discussed in this
1011 paper, with Interviewee 4 noting the politicisation of the ward committees
1012 introduced under the 74th Amendment. This would begin to address a

1013 problem in Darjeeling which is common across the world: short-term
1014 thinking on the part of local people and politicians. Several interviewees
1015 also noted that a short-term perspective persists in the ways that the local
1016 community views development. Similarly, a number of interviews including
1017 current and former members of the Municipality council (No. 6 and 10)
1018 raised doubts over the ability of local government to manage the needs of
1019 the area. They questioned whether the cyclical nature of government (tied
1020 to elections) and the consequent timeframes of office for elected officials,
1021 especially when viewed along ethnic or tribal lines, actually facilitate more
1022 effective form of governance. Giving the local community a greater say in
1023 the governance of Darjeeling could both foster more active engagement in
1024 thinking about the future, and help mitigate the problems of political
1025 churn.

1026

1027 Dealing with urban planning first, limiting unregulated urban development
1028 is of critical importance. The creation of a municipal plan for Darjeeling,
1029 along with the capacity to implement it, would be the ideal state. As noted
1030 above though, there is not the financial or institutional capacity to produce
1031 or implement a strategic plan for urban development in Darjeeling.
1032 Analysis of interviewee responses also suggest that a revised approach to
1033 policy production is needed that engages relevant NGOs, communities and
1034 political groups at the Municipal level. It could also be noted that the
1035 creation of a sustainable programme of development would not address
1036 the full extent of growth issues seen in Darjeeling. A strategic plan would
1037 help to guide development but it would also require effective buy-in from
1038 all relevant stakeholders.

1039

1040 To facilitate a shift from the existing top-down infrastructure provision
1041 approach, through the 74th Amendment Act, NGO and elected officials
1042 identified the prospect of developing programmes to improve community
1043 engagement and raise awareness of sustainability – several NGOs were
1044 working on schemes to encourage recycling or composting of food waste
1045 (Interview 1, 3 and 4). However, to successfully broaden the scope of these
1046 initiatives it was suggested that political will was needed to provide the
1047 legitimacy needed for local populations to become engaged (Interview 10).
1048 This is of course critical, given the constraints on the power of NGOs
1049 (particularly in Darjeeling, where the NGOs in operation are relatively
1050 small) to effect widespread change. If “the government” at local levels
1051 could be seen to support sustainability programmes and facilitate better
1052 planning it was hoped that participation would become more effective
1053 (Interview 2 and 4). To achieve this an increased and more effective
1054 dialogue is needed between Municipal (and ideally State) officials, NGOs
1055 and local people. Willingness is also therefore needed from all actors to
1056 ensure this occurs. It has also been suggested that improved education,
1057 beyond the existing remit of NGOs, would enable a more explicit
1058 understanding of sustainability issues to be debated within local
1059 communities.

1060

1061 As implied above, the need for more community engagement in issues
1062 around urban development is not unique to Darjeeling, or indeed to India
1063 or the “developing” world. One interviewee noted, ‘the legislation for
1064 participation’ in governance is in place in Darjeeling, in the form of ward
1065 committee but ‘it is rarely followed through’. He observed that ‘resistance
1066 to participation comes from fear of transparency... there is a common view
1067 of participation – a focus on the middle aged, male and wealthy’. These

1068 words will echo with many, as comparable phrases could apply to
1069 participation efforts on the part of many municipalities in the UK, for
1070 example. But there are examples of more meaningful participation in both
1071 theory (cf. Healey 2006) and practice (cf. Wainwright 2009), which provide
1072 ideas about possible alternative pathways, and the benefits thereof.

1073

1074 Returning to the proposed interactivity in Figure 1 and 2 the analysis
1075 presented above indicates that the growth and political constraints seen in
1076 Darjeeling have a greater influence of development than the established
1077 economic, environmental and social triumvirate. Conceptually this paper
1078 thus suggests that a two stage process of evaluation can be proposed to
1079 understand how sustainable urban development can occur. By factoring in
1080 the potential influence of the physical and political constraints to growth
1081 we can move beyond the more simplistic assessment shown in Figure 1. As
1082 Wisner et al. (2004) and Williams (2010) propose placing a greater
1083 emphasis on context, as reported in this paper, moves sustainability
1084 debates forward, providing academics and practitioners with a more
1085 nuanced capacity to firstly conceptualise, and latterly actualise, deliverable
1086 sustainable development programmes in situ.

1087

1088 **7. Conclusions**

1089 Urban development in the town of Darjeeling, as everywhere, is subject to
1090 a number of complex and interacting influences which makes attempts to
1091 move to a more sustainable form of development challenging. Actors
1092 attempting to achieve such a move in Darjeeling, however, are additionally
1093 constrained by external contextual factors of such strength and complexity
1094 that breaking out of current unsustainable development pathways can
1095 seem impossible.

1096 Since the British first established Darjeeling as a “hill station” for its
1097 summer administration, it has been a focus for tourism and economic
1098 development, but there has not been a corresponding investment in
1099 infrastructure or service provision. Thus the interaction of economic,
1100 environmental and social sustainability is somewhat undermining the
1101 progression from theory into practice (Ekins, 1993; Kirkby, O’Keefe and
1102 Timberlake, 1995; Williams, 2010). Many of the interviews conducted in
1103 Darjeeling suggested that the lack of an autonomous Gorkhaland State is
1104 the largest obstacle to planning more sustainably in Darjeeling. The
1105 analysis presented in this paper suggests that this may appear to be the
1106 case as Darjeeling Municipality and District are marginalised within current
1107 governance arrangements, but whilst a lack of political autonomy is central
1108 to the perceived fractures between State and local development in West
1109 Bengal, simply replacing one governance structure with an alternative does
1110 not address the underlying problems of sustainable urban development.
1111 Wisner et al.’s (2004) re-conceptualisation of resilience in sustainability
1112 planning suggests that replacement is simply likely to lead to a replication
1113 of existing barriers and constraints. In order to fully understand the
1114 development context in Darjeeling the interrelationship between the
1115 political arenas, the economic development of the area and the physical
1116 capacity of the landscape to cope with growth must be made clear.
1117 Establishing a Gorkhaland autonomous political unit may lead to a re-
1118 evaluation of how urban areas in the Darjeeling Municipality are
1119 developed, but this cannot be seen as the sole solution.

1120

1121 Darjeeling is a constantly evolving Municipality, and the ways it is changing
1122 provide guidance to other areas of how not to promote sustainability in
1123 upland areas. It also illustrates the dilemmas faced in upland areas of

1124 Sikkim, Himachal Pradesh or Nepal where attempts to control the evolving
1125 development arena suggest that sustainable development is constrained
1126 across all Himalayan locales. State actors in Darjeeling therefore need to
1127 consider new solutions to the specific issues that are arising in the town.
1128 Lower cost and smaller scale interventions in the realm of infrastructure
1129 provision would go some way to promoting a more sustainable form of
1130 development. Moreover, they also need to engage more effectively with
1131 local landowners and communities to ensure that growth is delivered that
1132 can be classed as appropriate and sustainable. Rethinking the governance
1133 mechanisms at the local and State level would assist this process but local
1134 populations also need to work with NGOs and landowners to formulate
1135 more efficient livelihood strategies (Wisner et al., 2004). If these barriers
1136 can be addressed then the approach to sustainable development
1137 suggested in Figure 2 will provide a greater reflexivity for planners and
1138 government to effectively integrate evaluations of the physical and political
1139 context into development plans.

1140

1141 In a wider sense the development constraints visible in Darjeeling replicate
1142 those seen in India's growth debates, and specifically those present in
1143 discussions of mega-cities. The analysis presented above thus provides
1144 additional evidence that the politicised nature of development influences
1145 the interplay of economic, environmental and social sustainability .
1146 Addressing how urban form takes shape in Darjeeling therefore provides a
1147 useful insight into the complexities of expansion that can be translated to
1148 other upland or marginal areas. Expansion narratives may, therefore,
1149 attempt to integrate sustainability rhetoric as described by Middleton and
1150 O'Keefe (2001), yet the success of such applications should still be
1151 considered contextual. As a result the evidence presented in this paper

1152 can be contextualised in two ways; first it highlights the complexity of
1153 development at the local or site-specific scale, whilst, secondly highlighting
1154 the need to reconsider the parameters of broader sustainable
1155 development debates.

1156

1157 Fundamentally, Darjeeling is at a critical point in its existence. As a location
1158 with a very specific colonial and post-independence history, and currently
1159 engaged with calls for further ethnic autonomy, the area has a legacy of
1160 change. The outcomes of the calls for autonomy could foster a renewed
1161 vision for a sustainable form of urban development. However, all those
1162 involved in the town should not identify this as the only solution for the
1163 future. Greater engagement and awareness raising, the development of a
1164 formalised strategic investment programme and greater dialogue between
1165 stakeholders would, potentially, offer more realistic prospects of achieving
1166 urban sustainability. Darjeeling must therefore draw on the knowledge of
1167 local populations to shift the emphasis of development away from
1168 simplistic assessments of economic, social or environmental value
1169 individually to ensure that development activities effectively encompass
1170 sustainability principles. There is also scope to apply such assessments to
1171 other upland areas to establish new sustainable investment processes
1172 across marginal landscapes. If this can be achieved then opportunities will
1173 arise for more sustainable practices to become normalised in the
1174 development arena of Darjeeling.

1175

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