

E-government Tools, Claimed Potentials/Unnamed Limitations The Case of Kalyan–Dombivli

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Abstract

Contemporary cities are characterized by the inequality reflected in uneven geographies of quality-of-life conditions. When these inequalities are a matter of concern, local governments usually assert their intention to respond to citizen's needs and deprivations. It is in this context that information and communication technology (ICT) tools are being incorporated in Indian cities to promote local governance by improving quality of life and increasing efficiency and transparency in the response to citizen's demands and needs. Depending on the institutional environment and how information is created, processed and disseminated, these 'e-government' tools can exacerbate existing exclusionary practices. The objectives of this article are twofold. First, we want to explore how a local e-grievance redressal system reflects self-expressed needs. Second, we want to investigate whether there is a (mis)match between self-expressed needs and deprived areas. This helps to answer the question how these systems capture the requirements of the most deprived. The main methods used are geocoding and spatial visualization of the processed information. Results show that the self-expressed needs do not necessarily concentrate in the most deprived areas. This suggests that the e-grievances redressal system does not guarantee a narrowing of the gap between the different sections of the city, nor does it necessarily capture the requirements of those in the most need.

Keywords

Inequality, deprivation, profiles of exclusion, e-government, ICT tools

Introduction

Neoliberal-dominated Urban Policies and Uneven Geographies

Contemporary cities are characterized by the inequality reflected in uneven geographies of quality-of-life conditions. In the age of neoliberal-dominated urban policies and influenced by globalization process, in many cities, the gap between better and worse-off areas is increasing (Borja and Castells, 1997; Castells, 1996, 1999; Harvey, 2000). Wacquant (2009, p. 306) offers a useful sketch of the neoliberal state model that originated in the United States but has been taken up by elites across the globe, including India,¹ as a 'political project aiming to remake the nexus of market, state and citizenship from above'.

This mode of statecraft suits urban middle classes oriented to the future, enamoured with raising their cities to international levels. And those who have the resources to compete in the formalizing job market, live in a legitimate flat and secure needed services. The ethos of self-responsibility and entrepreneurialism mixed with consumerism and faith in technology positions them as the candidate to represent the implied 'good' urban citizen in city development plans, large-scale urban renewal/development projects and e-governance initiatives. The link between capitalism, neoliberal urbanization and the middle class have been well established (Brenner and Theodore, 2002; Harvey, 2008; Marcuse, 2009), and it is useful to view the present battles over urban space as well as inequalities and illegitimate (informal) occupancy in regards to the neoliberal state's interest in increasing capital accumulation and middle-class interests in modernizing the cityscape. The middle class is becoming active in civil society and demanding their right to the city.

At the neighbourhood level, this usually takes the form of citizen or housing societies demanding that officials enforce or create regulations to deal with urban blight (encroachments, slums, hawkers, beggars) in their residential areas and other public spaces they wish to enjoy more (Baud and Nainan, 2008; Fernandes and Heller, 2006). At the higher levels, this takes the form of filing public interest litigations to use the courts to pressure municipal public officials to enforce rules and regulations, often resulting in numerous evictions and demolitions as well as the closure or relocation of urban informal industries to the periphery (Bhan, 2009). Less personalized but just as effective, corporate economic interests (corporations, architects and real estate developers) and state officials friendly to their cause, leverage arguments of obsolescence² and rent gaps³ to rationalize which areas get targeted for urban renewal or development. These arguments—blight, rent gaps and obsolescence—are mutually reinforcing. They both tend to aestheticize anti-poor politics and neoliberal practices; to elevate exchange value over use value; and to elevate the demands of the middle-class and elite over the needs of the poor and working classes. While close scrutiny would often reveal informal aspects in middle class and elite modes of occupancy, these are not the focus of public interest litigation and their legitimacy is never seriously questioned.

Concern about Uneven Geographies and the e-Governance Response

There is growing interest in understanding and explaining uneven geographies.⁴ This relates to the concern of levelling off quality-of-life conditions at global, national and local level. At global level, the Millennium Development Goals (MDGs) include a clear commitment to improve the lives of slum dwellers. At national level, India adopted the MDGs, setting its own targets and setting up pro-poor policies and reforms in urban areas within specific programmes, such as the Jawaharlal Nehru National Urban Renewal Mission Programme (JNNURM). One of the responses at local level to address the JNNURM requirements (mandatory reforms) is the implementation of information and communication technology (ICT) tools or e-government tools. In the city of Kalyan–Dombivli, this is listed in the approved City Development Plan as the 'introduction of a system of e-governance' (Kalyan–Dombivli Municipal Corporation, 2006). Under the e-governance section of the Kalyan–Dombivli Municipal Corporation (KDMC) City Development Plan, it is also indicated that 'the project has been already replicated at various Municipalities within and outside Maharashtra. The [e-governance] project has received accolades/awards at State, National and International level' (KDMC, 2006, p. 143).

One of the components of the e-governance system in Kalyan–Dombivli is the module called ‘Complaints and Redressal System’. In general, these ICT innovations are introduced to promote local governance by improving quality of life and increasing efficiency and transparency in the response to citizen’s demands and needs. However, it should be noted that e-governance tools are embedded in larger forces of neoliberal policies and class antagonisms over space and value (both use and exchange). These forces impact how and why local governments take up ICT. Thus, to view them as apolitical or neutral tools would miss the ways they could possibly contribute to exacerbating rather than treating inequalities (Benjamin et al., 2007). It is also important to keep in mind the role that the private ICT sector plays in the uptake of e-governance tools, the framing of governance problems and being amenable to technological and informational fixes. They benefit in the form of lucrative contracts with the local state. Also, there is economic incentive (contract extension) for them to maintain the localities creating dependence upon them by obfuscating knowledge transfer to city officials and employees. E-governance tools and ICT innovations, in general, are being pushed by private sector/consultants that benefit from pushing ‘governance problems’ as technology deficit and information deficit problems.

At this point, it is important to highlight that not all inhabitants enjoy citizenship rights. Chatterjee’s (2004) work offers an important directive to avoid the erasure of unequal social life. He argues that concepts of civil society and citizen need to be divided in two: into civil and political society; and citizens and populations. Civil society is the domain of middle and elite classes who are able to comply with private property laws, tax responsibilities and participate in the professional economy—a situation where the links between civil society, the state and the market are clear and reinforcing. However, the urban poor’s citizenship status is fragile at best, given the illegality or quasi-legality of their work and occupancy. Therefore, the state and powerful market actors do not regard them and their organizations as having the same rights or ability to participate in governance as civil society. Rather, the poor are ‘populations’ who occupy political society. ‘Populations’ rest upon negative normative assumptions that imply deviance and degrees of (un)deservingness and that rationalize the adverse incorporation of certain groups when it comes to claiming and using their citizenship rights (Baud et al., 2008). What population(s) the poor belong to (encroacher, slum dweller, rag picker, migrant from Bihar) is more determinate of the form and content of their relationships with the state and markets than their fragile citizenship status. Political society⁵ engages in constant negotiations over what different poorer groups and areas can claim and at what price. Since these claims come from those whose productive activities and means of place making are objects of stigma and illegality, these arrangements are often ad hoc, vary from case to case and are off the record. Fieldwork in Kalyan–Dombivli shows that these negotiations do not occur over e-grievance redressal systems. Poorer inhabitants tend to be offline in that they do not have access to computers or even basic knowledge of how the Internet works, let alone English proficiency. Also, they are used to going to party workers or ward councillors when they have an issue and avoid going to the municipality where they have learned to expect rudeness and disregard. Past experience and lack of knowledge result in them mainly self-excluding from this mode of citizen engagement.

‘E-Governance Romanticism’

This article relates to a wider research programme that explores the role of spatial information infrastructure in reducing urban deprivations in Indian cities (see Pfeffer et al., 2008). There is a general belief

that more and better information can lead to more efficient planning and decision making, and subsequently more effective urban governance in terms of inclusion (Pfeffer et al., 2008). At the same time, some authors recognize that within decision making, policy choices and decisions are value judgements and cannot be determined by information (Wong, 2006, p. 20). On the contrary, in a real policy process, issues such as 'ideology, interests, institutional norms and practices and prior information' play a key role in influencing decisions (Weiss, 2001, p. 286, in Davoudi, 2006).

The optimism towards information rests upon assumptions of a polity marked by citizens equally disposed to partake of these tools and that government is interested in forming inclusive cities more than it is interested in being able to compete for capital and middle-class inhabitants while maintaining its avenues of rent seeking from the poor's insecure position in the city. In addition, the idea that more information leads to more equitable outcomes is always assumed but never yet to be proven (Haque, 2002; Taylor and Lips, 2008). The elevation of access to information (transparency) as a human right combined with the faith in technology to overcome present governance issues of corruption, incompetence and inefficiency have caused many to celebrate e-governance uncritically (Mazzarella, 2006) and view it divorced from contexts where social, political, economic and digital-divide inequality are the norm.

E-Governance/e-Government? Tools, Claimed Potentials and Unnamed Limitations

E-grievance redressal systems are 'public feedback mechanisms' with the characteristic that the interactions between the citizens and the complaints they send to the government can be traced back. It is because of that characteristic that e-grievance redressal systems and public feedback mechanisms are considered 'the key to increase transparency in e-government initiatives' (United Nations Development Programme [UNDP], 2005). E-grievance redressal systems are also considered as part of participatory mechanisms of accountability to citizens which presuppose that citizens should be encouraged to participate in service delivery (Cavill and Sohail, 2004).

There is a general positive view about the potentials and the capacities that e-governance and e-grievance redressal systems in particular have. They are usually presented as an opportunity to increase openness and transparency within the public administration; to support efficient city management and to monitor effectiveness in the response to grievances (Wallack and Nadhamuni, 2007, p. 9); and to provide information for infrastructure problems identification (Ranganathan, 2008, p. 6). The limitations listed are more related to scaling up the technical infrastructure than questioning whether these systems are able to capture the requirements of the most deprived and influence policy and actions. There is also an absence in the debate on the exclusionary practices that these systems may entail.

Those critical of growing state-created grievance and public feedback mechanisms cite the issues highlighted in the former section and this mode of participation as being better labelled as *administrative incorporation* (Rodan and Jayasuriya, 2007). They argue that administrative incorporation both individualizes and thus depoliticizes citizen-government relationships by bypassing party and politicians for issues of bureaucratic accountability. It limits what is open to participation—citizens who can access these systems are allowed to make comments/requests related to a particular service/department or to an already established process, but not regarding more substantive issues of whose interests and needs policies and processes are oriented towards (Jayasuriya and Rodan, 2007).

Additionally, taking into account that in the present 'informational age' some areas are bypassed by technology resulting in 'switched-off' areas (Castells, 1996, p. 34), one could expect that—despite the

opportunities described—e-grievance redressal systems might be hindering further the capacity of deprived groups to channel complaints, or put them in relative disadvantage with groups which are ‘plugged-in’ or live in ‘switched-on’ areas. E-grievances might be highly dependent on ICT access.

In this study, the data produced by an e-grievance redressal system is analyzed to identify what sorts of complaints are submitted where and whether there is a relation with areas of multiple deprivations.

Data and Methods

For the analysis of the e-grievances and multiple deprivations, different databases and methods were employed.⁶

The analysis of the e-grievance redressal system is based on the list of all e-grievances submitted in the year 2007 which contains data on pending and solved complaints, in particular the submission date, sector and type of complaint, response to the complaint and some kind of geographical reference like an indistinct address or landmark. In addition, interviews and small-scale workshops with local officials and councillors, but also local self-help groups from poorer areas, and employees of the Poverty Alleviation Cell, took place in November 2008 to investigate the role and use of the e-grievance redressal system.

For the mapping of multiple deprivations, spatially disaggregated databases from the Indian Census of 2001 were used to construct an index of multiple deprivations (IMD) as designed in Baud et al. (2008; Baud et al., 2009). While household tables referring to basic services and households assets could be obtained for health wards only (of which there were only eight in 2001), population data like number of literate or employed inhabitants were provided for the 96 electoral wards (EWs). This limited the construction of the IMD to only social and human capital aspects.⁷

In order to analyze the spatial pattern of both the grievances as well as the IMD, the data had to be matched to the geographical boundaries of the EW levels. In 2001, there were only 96 EWs, corresponding identically with the population tables, while in 2007, the EW boundaries were considerably rearranged, resulting in a new map with 107 wards.

Data Processing and Mapping

Sound analysis with the available data is quite a challenge. For example, the list of grievances contained some kind of geographical reference; however, this was insufficient to match it with the EW boundaries (there was no reference to their ward number). Therefore, they had to be manually geocoded with the help of KDMC staff. To locate spatially the grievances, it was necessary to manually assign an EW number to each of the complaints. This was managed by using planning office maps and attributes such as the address and landmarks combined with staff’s tacit knowledge of the city. Since the data refer to the year 2007, the KDMC staff used the 107 EW classification. Moreover, knowledge on the 96 EWs might not have been available among the current staff since the Census 2001 EW boundaries are not used locally.

Furthermore, it was not possible to obtain the complete list of census variables for the 96 wards; financial and physical deprivation had therefore to be omitted from the IMD. In addition, it is more

logical to relate grievances to population data; however, as population was only available for the 96 wards of 2001, the population reference for the 107 ward is only an estimate, based on the assumption that population is equally distributed and that there were hardly changes in the spatial distribution.

The quality of the geographical boundaries is just sufficient for visualizing spatial patterns, though not appropriate for doing metric calculations or accurate spatial overlays.⁸

After assigning the EW number to the grievances list, the resulting table was exported to a geographic information system (GIS) software (ArcGIS) to geocode the complaints using the EW number as the key commonality. In that way, a polygon map containing the geographical boundaries of the different wards was attached to an attribute table containing the list of complaints. The total number of complaints per ward were standardized by the estimated total population per ward. The final value per ward represents the number of complaints per 1,000 inhabitants. Apart from the mapping, statistical analysis was applied to the complaints data, specifically frequency tables of groups and variables.

Mapping the IMD followed the same procedure. First, the table was imported to ArcGIS and then geocoded using the 96 EW boundaries.

Finally, the resulting maps were visually compared, namely, the map displaying the index of multiple deprivation and the concentration of complaints per wards. The resulting maps were also exported to Google Earth for visualization and discussion with a group of ward councillors, local self-help groups from poorer areas and employees of the Poverty Alleviation Cell.

Analysis of Complaints from e-Grievance System in KDMC

The KDMC's e-grievance system is part of the e-governance programme initiated by the KDMC in 1999 and implemented in 2002 (ABM, 2009). The objective was 'of creating a system driven Municipal Corporation with highest levels of Transparency, Accountability and Citizen Servicing Standards' (ABM, 2009, p. 1) with the following claimed benefits for the citizens:

- Time-bound service delivery
- Transparency and Accountability in Corporations functioning
- Hassle-free interactions with quicker response time for all the services
- Objectiveness in decision making, leading to more impartial and transparent governance

From the objective, we see that the cross-cutting claimed benefits are both transparency and efficiency. In terms of accessibility to different groups, the implementation of the programme took into consideration that the e-governance tools could be accessible via the Internet but also via a group of public offices called 'Citizen Facilitation Centres' (CFCs). It is also interesting to note the participation of the public and private sector in the development and implementation of the e-governance programme. This includes the Indian Institute of Technology, National Centre for Science and Technology and TATA Institute of Fundamental Research, VJTI (engineering college in Mumbai) and Mumbai-based ABM Knowledgeware Ltd (ABM, 2009).

Some of the usual potentials of e-governance are being claimed in KDMC's e-grievance system. Despite receiving several awards and being replicated in other municipalities, an analysis of some local newspapers suggests that there are some limitations. The e-governance system does not necessarily

speed up the resolution of complaints, and some people still prefer to have face-to-face interactions to place a complaint or they are not aware of the existence of the system (Dolare, 2007; Sharma, 2008). The latest also was mentioned during the interviews with ward councillors. A similar result was found in a case study carried out in another Asian city with a grievance redressal system, showing that resolving complaints in urban services still ‘necessitates further under-the-table payments or the influence of powerful intermediaries (political leaders, influential friends and mastaans—muscle men)’ (Cavill and Sohail, 2004, p. 165). The same study shows also the lack of awareness and that small proportion of citizens are willing to proceed with formal complaints mechanisms. The reported feeling is that ‘there will be no follow-up to their complaint and that officials are often unavailable or indifferent’ (Cavill and Sohail, 2004, p. 165).

The KDMC’s e-governance programme is a source of pride for the municipal corporation.⁹ Also, the middle class feels that it is a move ‘in the right direction’. However, interviews with local politicians and department heads and workers show that while improving the storage and retrieval of data, it will have no effect on ‘the power and money politics of the city’ that shape uneven development, nor on the poor’s dependency on political society and clientelism. In fact, none of the poorer inhabitants we spoke to even knew about the e-grievance system and none of the ward councillors reported using it or directing their constituents to do so. If development is at heart a political issue over who gets what, when, how, where and why, then ICT is as likely to exclude as it is to include poorer areas and groups.

The analysis of the mode of delivery of the complaints in 2007 shows that more than 90 per cent of all complaints in KDMC are delivered by hand; only 6 per cent are submitted online and just a negligible proportion used the phone for filing the complaint. That 90 per cent of the complaints are delivered by hand shows that citizens still prefer to deliver the complaints face to face. This could also be explained by the limited access to ICT or by the lack of awareness of submitting complaints online.

The analysis of the KDMC’s e-grievance system allows the identification and the distribution of different categories of complaints. Table 1 shows frequencies of the complaints data for the year 2007. In that year, four types of complaints were registered, in particular water supply, drainage, storm water drainage and encroachment. While the first three rather deal with malfunctioning of government services, complaints about encroachment refer to the displeasure of (some) citizen’s behaviour/activities.

Table 1. Distribution of Complaints across Different Types

Type	Number	Percentage
Drainage	1,378	47.2
Water supply	803	27.5
Storm water drainage	89	3.1
Encroachment	647	22.2
total	2,917	100.0

Source: Authors’ analysis based on KDMC e-grievance redressal system of 2007.

According to the data, the major problems are drainage and water supply (see Table 1 and Figure 1). With respect to water supply, about 60 per cent of the complaints concern ‘no water supply’, ‘shortage in water supply’ and ‘leakage in water lines’, while the major problems of drainage address the cleaning and maintenance of the drainage infrastructure, namely, the cleaning of septic tanks (70 per cent) and

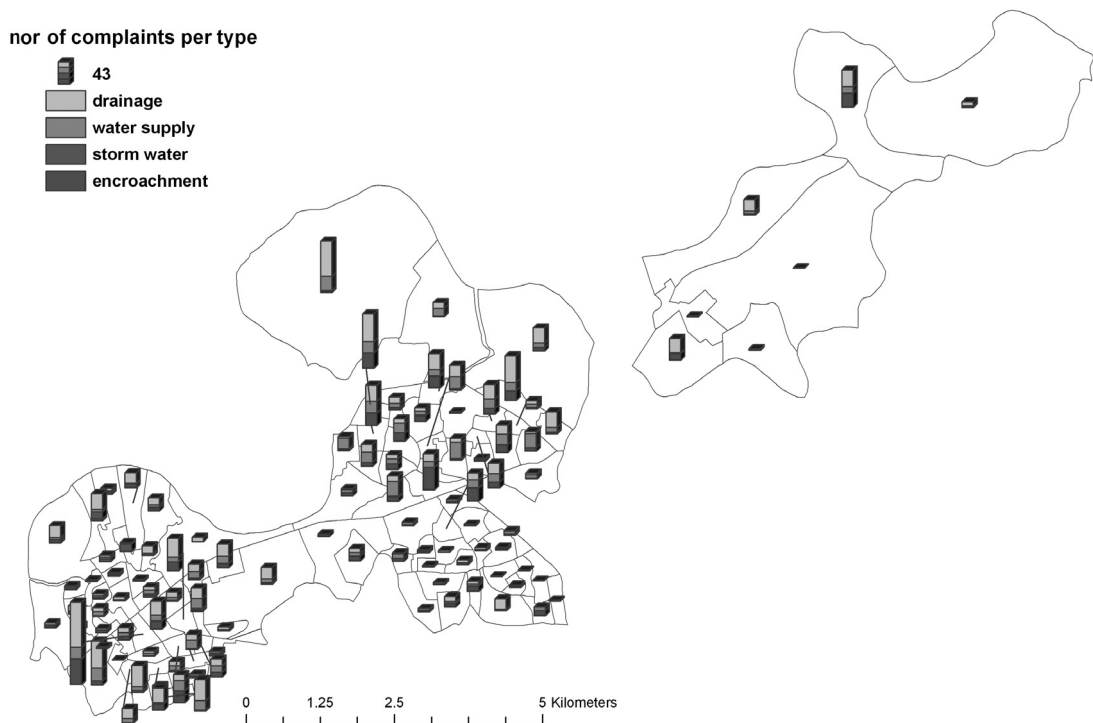


Figure 1. Distribution of Complaints Per Type, Aggregated to the Level of the EWs of 2007

chocking up or overflowing of open gutters (18 per cent). The major problem of storm water drainage refers also to maintenance, specifically the cleaning of the open storm water drainage (75 per cent).

The number of complaints with respect to encroachment are considerable. These are complaints submitted by citizens who are displeased about unauthorized constructions and development or unauthorized stalls or labour activities along the road and footpaths. From the description of the resolution of some of the complaints, it is found that in many cases, these are actually complaints about activities which are not against rules or specific regulations. This is an example of what we mentioned before as the pressure exerted by citizens (mostly the middle class) demanding that officials enforce or create regulations to deal with urban blight (encroachments, slums, hawkers, beggars). This also shows that the information produced by the e-grievance redressal systems cannot be taken exclusively as a proxy of 'self-expressed needs'. It remains for further research to investigate and differentiate the (sub)categories of complains which purely refer to *needs* that—if not satisfied—might affect the quality of life of the most deprived (for example, no water supply) and those which reflect the '*wants*' and discontent of some citizens (probably the better off) with urban blight.¹⁰

The visual comparison of the maps (Figure 2) shows that the complaints do not necessarily concentrate in the most deprived areas according to the IMD. When these maps were shown to city officials, politicians and self-help groups from poorer areas, no one felt that they accurately reflected the areas in

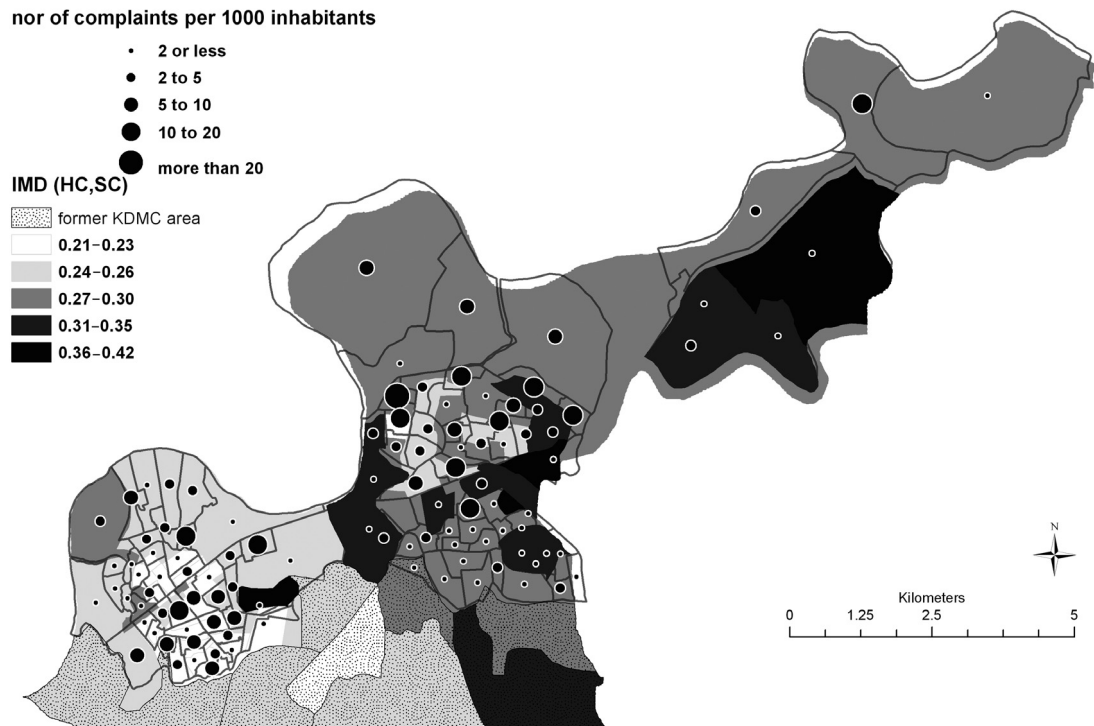


Figure 2. Overlay of Complaints as Graduated Symbols (Aggregated to 2007 EW Boundaries) and Index of Multiple Deprivation (IMD) as Graduated Colours (Matched to the 2001 EW Boundaries); the hatched area do not anymore belong to KDMC

Source: Authors' analysis based on KDMC e-grievance redressal system of 2007 and Indian Census of 2001.

Note: High values in IMD indicate a high multiple deprivation index.

the city with the greatest need for water and drainage improvements. This suggests that the e-grievances redressal system does not guarantee a narrowing of the gap between the different sections of the city, nor does it necessarily capture the requirements of those in the most need.

Conclusions

The main findings show that there is a mismatch between deprived areas and self-expressed need areas, probably reflecting different strategies open to households to cope with the absence or malfunctioning of urban services and the differential capability to demand public intervention and exert pressure against urban blight. The capacity of e-government tools to reduce the gap between deprived and well-off areas is not mainly dependent on the introduction of sophisticated ICT tools but on more complex process of integration. The level of penetration of these tools, both in terms of citizen uptake and administrative

utility, is shaped by local socio-economic inequalities and traditional modes of politics, administration and street-level delivery. This triggers the need to better explain, track and spatially identify profiles of inclusion, exclusion and adverse incorporation (see van Dijk, 2009). The dynamics and many of the characteristics underpinning uneven development within cities will be missed if we rely too much on technology and government databases to determine need. Additionally, the impact that this tool has had on the usual way poorer groups, local officers and politicians deal with area needs appears to be minimal. Thus, the more KDMC and other municipalities in similar contexts push for this type of citizen engagement and service provision, the less inclusive these municipalities are likely to become vis-à-vis poorer groups and places. However, even if these tools are combined with more qualitative ground truthing and data from other sources to better reflect need and service inequalities, the real impact that this more accurate source of information would have on triggering pro-poor policies might remain low given the limited citizenship of the urban poor and first-order governance priorities.

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Notes

1. For how tenants of neoliberalism have been taken up and adapted in India, see Chopra (2003); Fernandes and Heller (2006).
2. Something out-of-date—can be a product, place, identity, practice or concept. In terms of urban renewal, it is a place or structure that is past its prime and is stubbornly trying to avoid modernization (Weber, 2002).
3. Whitehead and More (2007, p. 2429) discuss how the issue of urban redevelopment in Mumbai is being determined by the gap between existing rents and rent that could be accumulated if land was put to ‘higher and better use’.
4. The monitoring of these growing inequalities across the cities as well as the identification of pockets of deprivation in certain locations has received the attention of recent research studies with focus on cities in the south (Baud et al., 2008; Baud et al., 2009; Martinez, 2009).
5. Populations, their associations, patrons, local-level politicians and bureaucrats and street-level service providers.
6. The usefulness of geocoding complaints and aggregating them at the electoral ward level was discussed with the heads of KDMC’s information technology (IT) department. It was agreed that this type of analysis would allow them to benefit from this data reserve (for example, spatial distribution of complaints in different sectors) and also, it would be a learning opportunity for the staff in regards to increasing their familiarity with spatial analysis via a geographical information system (GIS). In this context, KDMC made available a list of all e-grievances submitted in the year 2007.
7. Social capital is described by the percentage of people in scheduled cast. Human capital is the combination of percentage of literate people, percentage main worker and the number of households (HH) dependants.
8. The inconsistency in the data, and in particular the mismatch between administrative boundaries, probably relates to a lack of standards in spatial information and a lack of coordination among different organizations and different government levels.
9. ‘KDMC has pride of being one of the few ULB’s [urban local body] in the country to implement these reforms. In most effective and scientific manner. At KDMC today e-governance has become the basic for delivering good

governance to the citizens. Recently administrative reforms and public grievances, GOI has declared Golden Icon Award to KDMC. E-governance project for outstanding performance in citizen centric centre service delivery' (KDMC, 2006).

10. In fact, needs should be differentiated from wants. Needs can be satisfied and quantified and wants can be met and are related to personal desires (Smith, 1994, p. 34). Smith also indicates that 'to assert a need is to appeal to some external standard, however implicitly, which may legitimate something that would otherwise merely be a want' (Smith, 1994, p. 36).

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