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What works in improving the living conditions of slum dwellers

A review of the evidence across four programmes

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Cover image: Boy in Rio slum. © João Lima.

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Abbreviations and acronyms

ACCA	Asian Coalition for Community Action
ACHR	Asian Coalition for Housing Rights
BSUP	Basic Services for the Urban Poor
CODI	Community Organisations Development Institute
IDB	Inter-American Development Bank
MCGM	Municipal Corporation of Greater Mumbai
MMR	Mumbai Metropolitan Region
NSDF	National Slum Dwellers Federation
POUSO	Urban and Social Orientation Offices
PRIMED	Integrated Programme for Improvement of Slum Settlements
PUI	Integrated Urban Project
SDG	Sustainable Development Goal
SPARC	Society for the Promotion of Area Resource Centres
SSP	Slum Sanitation Programme

Abstract

About 1 billion people currently live in slum settlements – almost a third of the world's urban population – and this could increase to 3 billion by 2050 (UN DESA, 2013). The Sustainable Development Goals (SDGs), agreed earlier this year, acknowledge the urgency of the urbanisation challenge, most clearly reflected in the inclusion of an urban-specific goal. Goal 11 aims to 'make cities and human settlements inclusive, safe, resilient, and sustainable', with its first target seeking to 'ensure access for all to adequate, safe and affordable housing and basic services, and upgrade slums' (UN, 2015).

It is, therefore, timely to review the evidence on what works in improving the living conditions in slum settlements. Our focus is on *physical* living conditions: that is, access to land, housing and utilities, as these are among the most salient challenges facing the urban poor. They are also core elements of UN-Habitat's definition of a slum household.

In particular, we review the evidence of four different slum-upgrading programmes regarded in the literature as good practice: Rio de Janeiro's *Favela Bairro*, the *Programa Integral de Mejoramiento de Barrios Subnormales* (Integrated Programme for Improvement of Slum Settlements – PRIMED) in Medellín, Colombia, Thailand's *Baan Mankong* programme and a community toilets initiative in Mumbai, India. We conclude by highlighting the future challenges that governments will need to address to deal with urbanisation and the implementation of the SDG target on access to housing and slum upgrading. Ultimately, we hope this paper is a useful resource for policy-makers and donors grappling with the challenges posed by urbanisation and contributes to the wider SDG debate, particularly on how to meet target 11.1, as well as Habitat III conversations on a new urban agenda.

1. Introduction

More than half of the world's population now lives in urban areas, and this is set to increase, mostly driven by growth in developing countries. This is one of the greatest transformations of the 21st century. During the next two decades the urban population of the world's two poorest regions – South Asia and sub-Saharan Africa – is expected to double (UN-Habitat, 2014).

Urbanisation certainly brings opportunity. No country has achieved middle-income status without urbanising. But to make the most of this phenomenon, new infrastructure – housing, transport, hospitals, schools and public spaces – needs to be put in place. Without adequate services to match demand, the rapid increase of urban populations will pose new challenges, not least in terms of poor housing, insecure tenure, and inequalities in access to utilities.

About 1 billion people currently live in slum settlements – almost a third of the world's urban population – and this could increase to 3 billion by 2050 (UN DESA, 2013). The Sustainable Development Goals (SDGs), agreed earlier this year, acknowledge the urgency of the urbanisation challenge, most clearly reflected in the inclusion of an urban-specific goal. Goal 11 aims to 'make cities and human settlements inclusive, safe, resilient, and sustainable' with its first target seeking to 'ensure access for all to adequate, safe and affordable housing and basic services, and upgrade slums' (UN, 2015). Projections (Nicolai et al., 2015) suggest that historical trends on slum growth, particularly in sub-Saharan Africa, will need to reverse to have any chance of meeting the SDG target on access to adequate housing and services.

It is, therefore, timely to review the existing evidence on what works in improving the living conditions in slum settlements, the main aim of this working paper. In doing so, we hope it can be a useful resource for policy-makers and donors grappling with the challenges posed by urbanisation and contributes to the wider SDG debate, particularly on how to meet target 11.1.

Slum rehabilitation scheme. Photo: © Ben Lepley.

This paper also seeks to fill a gap in the literature. While there are a number of case studies and individual assessments of slum-upgrading programmes, with a few exceptions (e.g. Satterthwaite and Mitlin, 2014; UN-Habitat, 2015; Jaitman and Brakarz, 2013) it is difficult to find hard evidence of the outcomes achieved by different programmes, brought together in one place.

The focus of our review is what works in improving the *physical* living conditions in slum settlements,[1] with an emphasis on access to land, housing and utilities, as these are among the most salient challenges facing the urban poor. They are also core elements of UN-Habitat's definition of a slum household.

In particular, we analyse in detail four programmes: Rio's *Favela Bairro*, Medellín's *Programa Integral de Mejoramiento de Barrios Subnormales* (Integrated Programme for Improvement of Slum Settlements – PRIMED), Thailand's *Baan Mankong* Programme and Mumbai's community toilets programme. These four programmes were selected as they are regarded in the literature as good practice and were also highlighted as such in interviews with stakeholders. Where possible we also aimed to cover a mix of regions and types of programmes (e.g. in terms of the main actors driving them – local/national government, communities, the sectors covered, and their reach – national/city level).

Favela Bairro and PRIMED are two of the most well-known 'integrated' slum-upgrading programmes in Latin America. They are referred to as 'integrated' programmes in the literature as they tackle a number of issues at the same time, from land titling and housing, to urban services and community development. Further, we wanted to focus on Latin America as the region has a history of slum upgrading. There are fewer instances of forced evictions compared to countries in Africa and Asia, and support for slum upgrading from national and local government is perceived as a routine government activity. This is of course closely linked to the return of democracy, which has helped to change attitudes towards informal settlements (Satterthwaite and Mitlin, 2014). In addition, in some countries in the region, the role of local governments and their revenue base has been strengthened, and local elected mayors have been introduced. The cases of slum upgrading in Rio and Medellín are good examples of what strong local governments, working alongside slum communities, can achieve.

The two selected examples from Asia, Thailand's *Baan Mankong* programme and Mumbai's community toilets, place a stronger emphasis on the role of slum communities in driving change. Although coordinated by a national level agency, community-based upgrading is at the heart

Box 1: Definition of a 'slum'

UN-Habitat defines a slum household in operational terms, as lacking one or more of the following indicators: a durable housing structure; access to clean water; access to improved sanitation; sufficient living space; and secure tenure. The first four rely on conventional definitions; the last is the most difficult to assess and is not currently used in slum measurement (UN-Habitat, 2003).

In the text the terms slum and informal settlements are used interchangeably. We recognise that words need to be employed carefully and that the term 'slum' should not be taken lightly (Gilbert, 2007). However, the term is difficult to avoid, as it is widely used in the literature. Further, a number of urban poor groups have organised themselves as slum dwellers' organisations or federations.

There is some evidence that the elements that make up the slum definition feature among slum dwellers' chief concerns. For example, in a study of Nairobi slums (World Bank, 2006) respondents identified access to basic infrastructure, such as toilets, water supply, among others, as their priority. A survey conducted in the 1990s by Thailand's National Housing Authority showed that tenure insecurity featured among the top concerns for slum dwellers (National Housing Authority, 1992). Of course, residents of slum settlements require improvements in a number of areas that go beyond those included in the slum definition (e.g. access to jobs and income-generating opportunities, schools and hospitals and access to other basic infrastructure, such as streets, roads, street lighting). Where we find evidence of these wider impacts from the programmes reviewed in this paper, we reference it.

Source: Authors' elaboration based on UN-Habitat (2003), Gilbert (2007), World Bank (2006), and National Housing Authority (1992).

of *Baan Mankong*. The programme was also selected as it has national reach and a strong emphasis on land tenure issues (although it is a multi-sectoral programme), which is fundamental to achieving housing and basic infrastructure improvements. Finally, we selected Mumbai's community toilets to showcase an example of what communities can achieve by themselves to fill a gap left by government, in this case in the sanitation sector – an area of great need.

Where relevant we also draw on findings from a series of case studies on urban poverty undertaken for *Development Progress* earlier this year. This included analysis of what worked in improving the living conditions of existing slum settlements in three countries: Peru, Thailand and India (see Calderón, et al., 2015; Bhatkal and Lucci, 2015; and Bhatkal, Avis and Nicolai, 2015). From the case studies, it is clear that progress in living conditions of informal settlements results from the combined action of different actors: central and local government action, pressure from community organisations, and households' own efforts. Of course the prominence of these different actors varies depending on the specific context, as illustrated by the earlier case study work and the examples selected for this report.

The evidence for the four programmes selected in this paper is based on a desk review. Unfortunately, rigorous impact evaluation of slum upgrading is somewhat limited, with few programmes including baseline information and regular follow-up of particular outcome variables. In addition, there are a number of methodological difficulties in the evaluation of slum-upgrading programmes (some of which are not unique to these programmes but apply to wider infrastructure projects). For example, the selection of targeted settlements is often not random, but follows spatial needs and complex decision-making processes, including political reasons for the location of interventions. That means it is difficult to compare the outcomes of an intervention with a neighbouring slum that did not benefit from the same programme, as some of the causal effects may be linked to the characteristics of the location of the intervention in the first place (Jaitman and Brakarz, 2013).

Even in places where there is quantitative evidence of impacts, it may not be possible to generalise the results as they are likely to depend on context-specific characteristics. Where we find evidence from quantitative evaluations we cite it; however, in most cases we had to rely on qualitative evaluations comparing the initial ambitions of the programmes against delivered outcomes. These qualitative evaluations often involve analyses of the projects and national documents, field visits, interviews and focus group discussions with programme beneficiaries and other key stakeholders. While these provide very useful information, the lack of rigorous benchmarks limits our ability to compare progress of key variables before and after the interventions.

The paper is structured as follows:

- Section 2 sets the scene, analysing recent trends in urbanisation and the expansion of slum settlements.
- Section 3 summarises the evidence for the four selected interventions reviewed in this paper.
- Section 4 sums up the elements that worked particularly well in the four programmes reviewed.
- Section 5 concludes by highlighting three future challenges that governments will face in dealing with urbanisation.

2. Setting the scene: urbanisation and the expansion of slum settlements

2.1 Urbanisation and urban population growth trends

The majority of the world's population now lives in urban areas. By 2050, this is projected to grow to two-thirds, mainly driven by developing countries (UN DESA, 2014).

As much as 90% of the projected increase in the urban population to 2050 will take place in Africa and Asia. In absolute terms, large countries such as India, China and Nigeria account for a large proportion of urban population growth (UN DESA 2014, Table 4 in the Annex). However, changes in the proportion of the population living in urban areas better capture urbanisation dynamics. By this measure, the 20 countries expected to see the largest increases are all located in Africa and Asia, many currently have a low urbanisation rate, and the majority (12 out of 20) are fragile states (Table 5, Annex). It is important to highlight that many sub-Saharan African nations do not have recent census data or in some cases they do have it but its accuracy is contested; projections are, therefore, open to doubt (Mitlin and Satterthwaite, 2013).

Urbanisation materialises as growth in various types of settlements. Mega-cities – in particular, cities of 10 million plus residents – have received a lot of attention, in part because they are a relatively new phenomenon. There are 28 'mega-cities' today, up from just two in 1970 (UN DESA, 2014) and 41 are projected for 2030. Many of the fastest growing mega-cities are in China and India; some of them are also located in today's fragile states, such as in the Democratic Republic of Congo (DRC), Nigeria, Pakistan, Bangladesh and Egypt, raising concerns over the local capacity to manage urban growth at such a scale (Table 6, Annex).

Although mega-cities often dominate discussions of urbanisation, the fastest-growing agglomerations are medium-sized cities and cities with fewer than 1 million inhabitants located in Asia and Africa (UN DESA, 2014). These secondary cities often receive less attention and resources from local policy-makers and have poor services as a result (Ghosh, 2012). Table 7 in the Annex presents a list of the fastest-growing urban areas between 300,000 and 10 million residents, all of which are located in Africa (Nigeria, Tanzania and Niger to name a few).

Urbanisation is associated with rural–urban migration, as workers move from less productive activities in agriculture to more productive activities in urban areas. But rural–urban migration can also happen as a result of searching for better amenities, to escape rural poverty (even in the absence of prospects of a formal job in urban areas) or from conflict, natural disasters and social tensions.

However, rural–urban migration is actually not the dominant factor behind urban population growth in developing countries, particularly in sub-Saharan Africa (Potts, 2012a). Although population figures, particularly in some African countries, are notorious for their limitations (Mitlin and Satterthwaite, 2013), natural increase (the difference between births and deaths in a given location) appears to account for 60% of urban growth in developing countries.[1] The remaining 40% is due to net migration and reclassification of rural areas as urban settlements (UN DESA, 2014). Ultimately, what is driving urbanisation and urban population growth is country-specific.

2.2 The expansion of slum settlements

Slums generally develop as a result of a combination of rapid urban population growth, lack of affordable housing and poor governance. In some cases the pace of urbanisation outstrips governments' capacity to provide the framework for affordable housing (e.g. land, infrastructure, access to utilities) for an increasing population. Further, urban growth often occurs in peri-urban areas, which sometimes lie beyond administrative boundaries and are neglected by both urban and rural administrators. In other cases, governments are unwilling to act as they believe that providing services and better conditions to the poor will attract more people and cause slums to grow further. This means slums actually grow as they remain unserviced for long periods of time.

Statistics on slum settlements are difficult to produce as, by their very nature, they go unrecognised and unrecorded (see Box 2 overleaf on data limitations). UN-Habitat puts the global estimate of slum populations at 881 million as of 2014 and just under a third of all urban-dwellers in

1 Some challenge the extent to which urbanisation is happening in Africa as data on population in many African countries is limited. Circular migration (where people migrate to towns and cities and leave again, repeatedly) and a rising trend of more de-urbanisation means projections for some sub-Saharan African countries could be overstating the pace of growth (Potts, 2012a, 2012b).

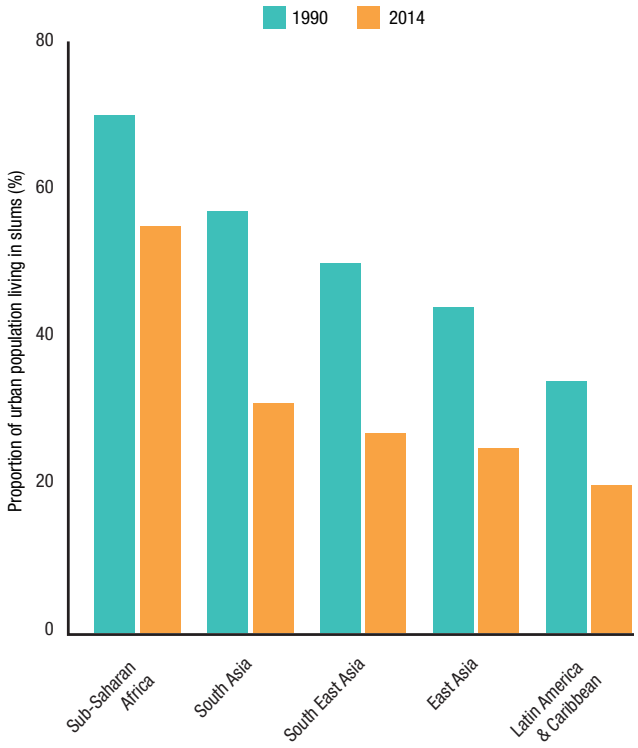
the developing world (UN-Habitat, 2014). Cities Alliance (2014) suggests that more than 1 billion people live in slums today.

Sub-Saharan Africa is the region with the highest proportion of the urban population living in slums – over 50% compared to figures ranging between 20% and 31% for other regions of the world (Figure 1). Generally, there was a decline in the proportion of the urban population living in slums between 1990 and 2014. However, in absolute terms the number of slum dwellers has increased in most regions, with the greatest growth seen in sub-Saharan Africa. In 2014, East Asia, sub-Saharan Africa and South Asia were the regions with the largest slum populations: 242 million, 191 million, and 187 million, respectively (Table 1).

It is useful to compare existing estimates of slum and urban population growth. This suggests that sub-Saharan Africa is the region where the rate of slum growth has been closer to that of general urban population growth (Figure 2 overleaf). In East, South-East and South Asia, while slums grew between 1990 and 2014, urban populations have grown much faster. This suggests that national and urban governments in sub-Saharan African countries have responded to the expansion of slum settlements less effectively than those in other regions.

The data clearly shows that urbanisation is putting increasing pressure on access to housing and access to utilities, particularly in sub-Saharan Africa. Projections (Nicolai et al., 2015) suggest that historical trends on slum growth, particularly in this region, will need to reverse to have any chance of meeting the SDG target on access to adequate housing and services. Further, whereas other regions are likely to see slower growth of their slum populations, they still have an unacceptably high number of households – 20% to 30% of the urban population – living in very precarious conditions.

Figure 1: Proportion of urban population living in slums by region (1990-2014)



Source: UN-Habitat (2014)

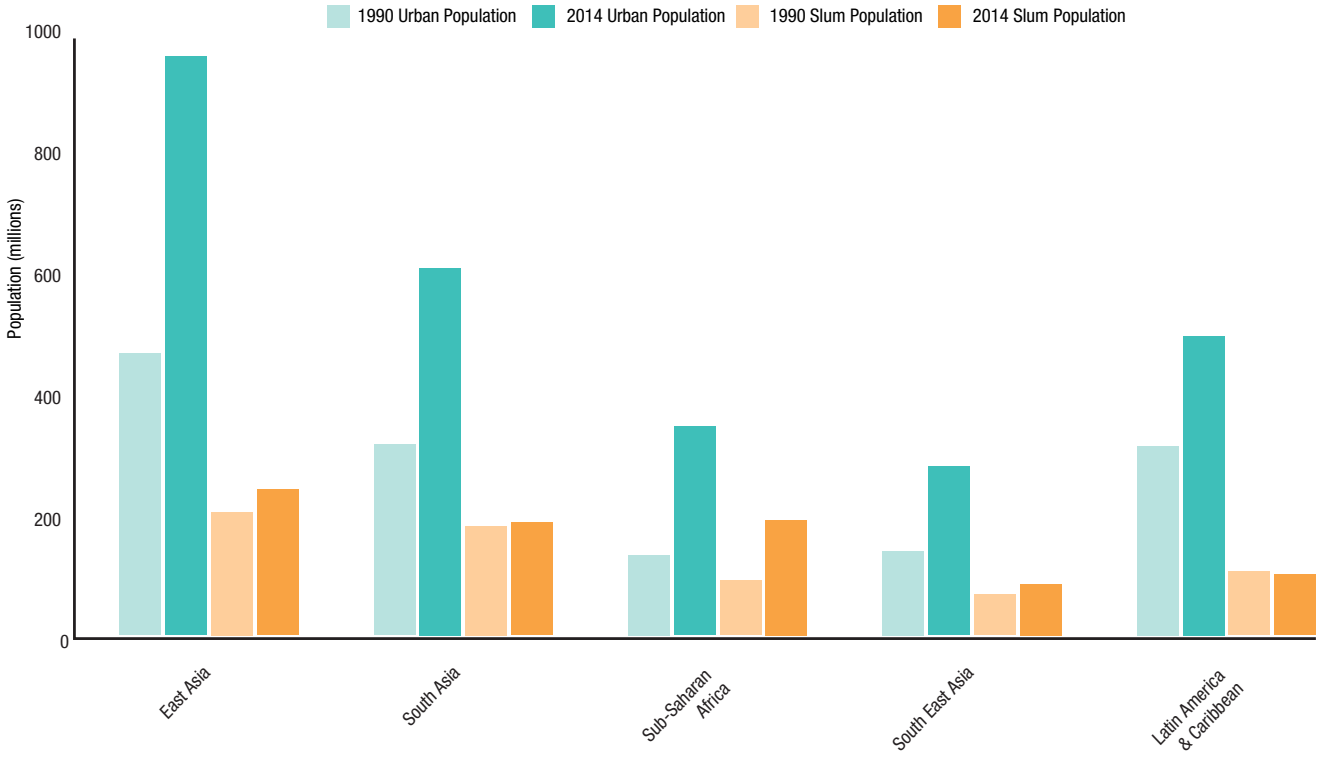
There is no doubt that improving living conditions in slum areas is a key challenge that governments around the world will face over the next two decades. In the next sections we review some of the programmes that are held as good practice in this area, as they can provide useful lessons for future policy.

Table 1: Slum populations by region (1990-2014)

Region	Number (millions)		Absolute growth (millions)	Average annual growth (%)
	1990	2014	1990–2014	1990–2014
Sub-Saharan Africa	93	191	98	3.0
East Asia	204	242	38	0.7
South-East Asia	69	87	18	0.9
South Asia	181	187	6	0.1
Latin America and Caribbean	106	101	-5	-0.2

Source: UN-Habitat (2014)

Figure 2: Urban and slum population growth (1990-2014)



Source: UN-Habitat (2014) and UN DESA (2014)

Box 2: Limitations of slums data

UN-Habitat is the only source of internationally comparable data on slums, but some experts highlight its limitations (Mitlin and Satterthwaite, 2013). UN-Habitat's definition of a slum often differs from that used by governments; therefore, estimates and trends are not comparable and can present conflicting information. Further, while the data provides a summary measure of the number and proportion of people living in slums, disaggregated information for each of the elements that UN-Habitat consider as making up a slum (i.e. lack of access to water and sanitation, insufficient living space, precarious housing using non-durable materials, and insecure tenure) is not readily available. Further, as census data (the main source of data disaggregated for small geographies) is often sparse, in many cases these estimates have to rely on survey data.

Surveys are often not granular enough to provide information on informal settlements. Additionally, they sometimes under-represent populations living in slum areas due to difficulties in identifying and interviewing them (Carr-Hill, 2013). Even census data can also sometimes under-report those living in informal settlements. Furthermore, tenure security – a prime concern for residents of informal settlements – is presently not included in most measurements due to data limitations. Finally, existing data on slums gets out of date quickly, as the population of urban informal settlements can change rapidly due to internal and circular migration.

Sources: Carr-Hill (2013); and Lucci and Bhatkal (2014).

3. Improving living conditions in slum settlements: a review of the evidence of four programmes

In this section we present the evidence we found for our selected four programmes, two in Latin America and two in Asia:

- Rio's *Favela Bairro*
- Medellín's *Programa Integral de Mejoramiento de Barrios Subnormales*
- Thailand's *Baan Mankong* programme
- Mumbai's community toilets

Table 8 in the Appendix summarises the main characteristics of each programme.

3.1 Rio's Favela Bairro Programme

About the programme

Rio de Janeiro's *Favela Bairro* is one of the most well-known slum upgrading programmes. It was set up in 1994 to integrate *favelas* into the rest of the city and address access to affordable housing, a longstanding problem in the city. In the 1990s almost a million people, one-sixth of the city's population, lived in over 500 *favelas* located on the hillsides (Imparato and Ruster, 2003).[2]

Favela Bairro is known as an 'integrated' programme because it aims to tackle challenges in different sectors at the same time. This includes: provision of basic infrastructure (water, sewerage, drainage, street lighting, street paving, parks and sport areas, reforestation); social services (childcare centres; social service referral centres; income and work-generating activities); community organisation and development; and land titling (Jaitman and Brakarz, 2013).

The programme was implemented in three phases with the following objectives:

- Phase 1 (1994–2000): upgrading 52 *favelas* and improving 8 irregular subdivisions;[3] focus on urban infrastructure, community development and land titling (Jaitman and Brakarz, 2013).
- Phase 2 (2000–2007): upgrading an additional 52 *favelas* and strengthening activities in child development, adult education and social services referrals as well as community development and property regularisation (IDB, 2007; Jaitman and Brakarz, 2013).
- Phase 3 (2012–present): added a safety component to earlier components (Jaitman and Brakarz, 2013). Note that this third phase is now known as 'Morar Carioca' and there are ongoing discussions about its implementation. This review focuses on *Favela Bairro's* first and second phases.

The programme is a multi-agency collaboration between the Inter-American Development Bank (IDB) and the national and municipal governments. Implementation is spearheaded by the Housing Department (*Secretaria Municipal de Habitação*), which coordinates the participation of other departments (Tulier and Gossman, 2013). A technical committee approves and monitors projects, while a coordination committee brings together the various departments involved; both are under the authority of the Mayor (UN-Habitat, 2015). In addition, NGOs were contracted to operate community centres and other social and educational projects. In some cases, neighbourhood associations were also in charge of the implementation of some aspects of the programme, such as reforestation or waste collection.

The choice of which settlements would be part of the programme involved a rating system which combined poverty indicators and the likely cost efficiency of the proposed investment. An additional criterion was whether operations in slum settlements in the same geographic area could be combined to increase the impact of the

2 More recent estimates put this figure at 25% (IDB, n.d.).

3 While "favelas are settlements in areas that have been illegally occupied by low-income population groups", subdivisions or "unregulated settlements are areas that are divided up into lots and sold by informal developers without respecting the dimensions or minimum infrastructure required by the municipality to grant permits for legal occupation" (IDB, n.d.).

programme (UN-Habitat, 2015). The programme was initially restricted to communities of between 500 and 2,500 households due to cost considerations.[4]

Once a settlement had been selected, community members were involved in shaping the specific elements of the intervention (Soares and Soares, 2005). Service options tended to include improved access roads, storm drainage, consolidation of slopes, water and sanitation, and electricity (Imparato and Ruster, 2003). Urban and Social Orientation Offices (*Postos de Orientação Urbanística e Social* – POUSOs) were set up to connect residents with architects, engineers and social workers, ensuring in this way that the project was collaborative and participatory (Gomez, 2012). POUSOs were also tasked with carrying out operations and maintenance functions and facilitating an ongoing relationship between the municipality and the community, even after the programme ended.[5]

A typical *Favela Bairro* project sequence involves the following (MIT, 2001):

- selection of locality and contact with the community organisation;
- design of a master plan for the area (for *favelas*);
- discussion of proposals with the organised community and adjustment of project designs;
- preparation of final drawings for investment projects, approved by state and municipal agencies;
- technical analysis and approval by the executing unit;
- project implementation by construction companies, with incentives for employing local community labour;
- operation and maintenance, by city or state agencies, and monitoring and evaluation.

The three phases of the programme cost approximately $900 million in funding. Phase 1 was allocated $380 million, with the IDB providing a loan for $180 million, and the balance coming from the Rio municipality (Imparato and Ruster, 2003). Phase 2 was granted similar funding levels. In 2010, a third phase valued at $300 million was agreed, with the IDB and Rio municipality each committing to funding half of the programme (IDB, 2010). Planned investment over all three phases combined has averaged $2,500 per household with a maximum limit of $4,000 per household. These figures reflect the commitment from the municipal government, as it allocated nearly half the city's budget to its Housing Department and gave it a central management role in the programme (Magalhães and di Villarosa, 2012).

The programme reached 62 *favelas* and 8 subdivisions in Phase 1, and 62 *favelas* and 16 subdivisions in Phase 2, with a total of 137,000 families (Jaitman and Brakarz, 2013; these numbers exceed the objectives set out initially). Taking into account that there were over 500 *favelas* in Rio in the 1990s (according to estimates quoted in Imparato and Ruster, 2003 and in Xavier and Magalhães, 2003), the programme covered about 25% of the city's slums. [6]

Evidence of impact

In this section, we present the evidence we found on the impact of the programme, particularly on tenure security, housing and access to utilities. Where evidence is available we also refer to other impacts (e.g. on health, education and social capital).[7]

With regard to tenure security, the programme dropped its original plans for titling because the complexity of the Brazilian legal system was deemed insurmountable (Rabello de Castro, 2002; IDB, 2011). The programme took a pragmatic approach: rather than granting full ownership of land, the programme granted the right to use it. Municipal planning authorities also declared those *favelas* undergoing improvements as Special Social Interest Areas. This meant that the usual regulations were suspended and they had their own special planning processes and building codes. This was the process for *favelas* built on publicly owned land. For those on private land, where occupation dated back at least five years, the programme provided support with claims in order to prevent the communities being displaced and the land being commercialised but rather kept in the public domain (UN-Habitat, 2015). Based on this experience, Handzic (2010) concludes that full regularisation of land tenure is not essential and that security of tenure is more important. With land belonging to local or central government, slum communities can have tenure security by remaining on the land and using it (UN-Habitat, 2015).

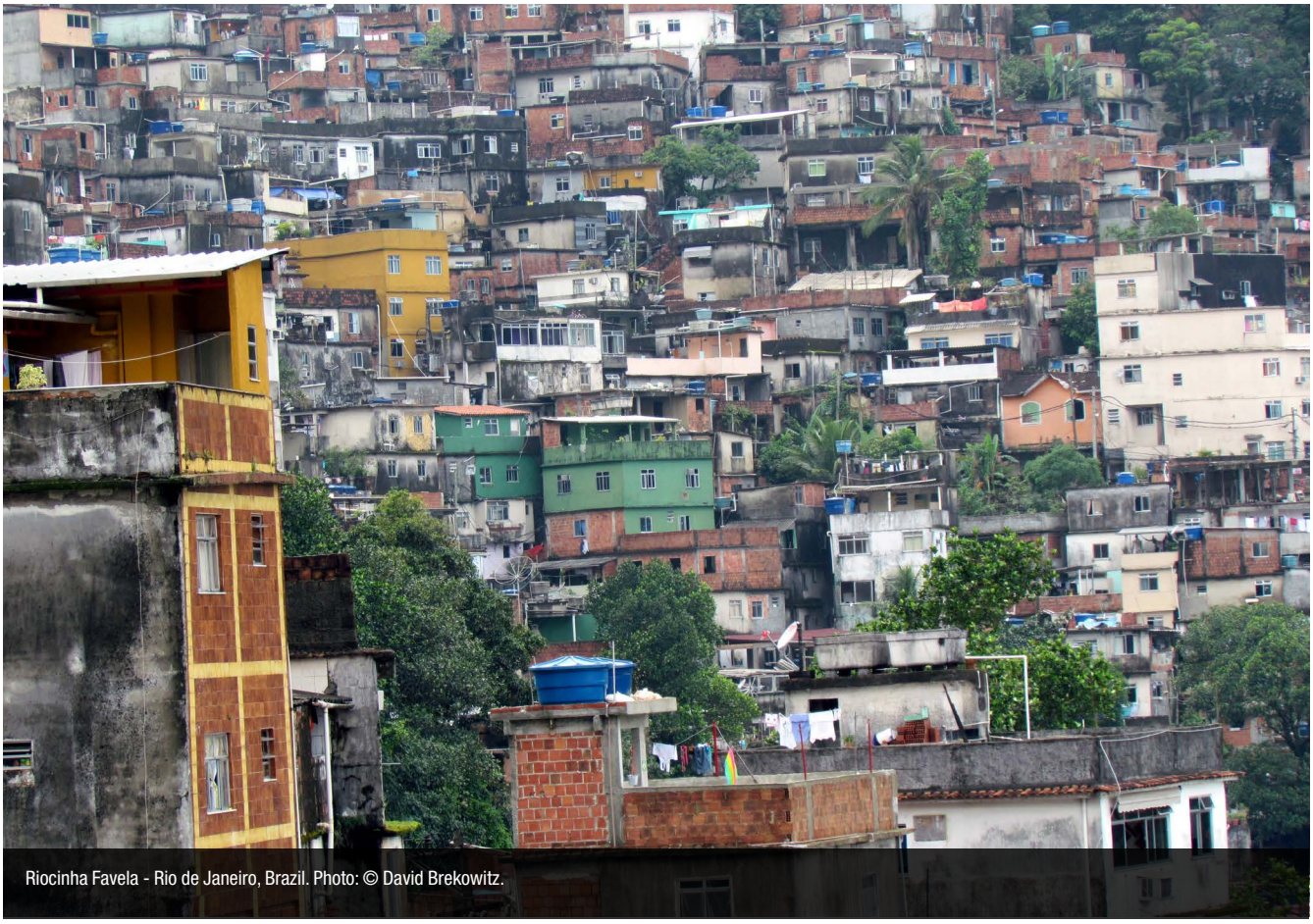
In addition, the IDB's evaluation found that Favela Bairro has had an impact on household perceptions of dwelling worth. On average, households in the programme reported property values that were over 40% higher than those stated by non-beneficiaries (IDB, 2011). Other studies (e.g. Brakarz and Aduan, 2004) also found that property values increased by between 80% and 120% in the *favelas*

4 See UN Habitat (2015) for further details of the programme's selection criteria.

5 Note that the role of POUSOs evolved over time. Initially they were intended to prevent people from settling on newly created public spaces (Tulier and Gossman, 2013).

6 IDB (n.d.) cites 30% of all slums were covered taking into account other upgrading programmes, such as *Bairrinho, Morar Legal*, and others.

7 Unfortunately, the project's monitoring and evaluation component was delayed (Jaitman and Brakarz, 2013) which meant there was essentially no baseline data collected for evaluation. Soares and Soares (2005) performed an ex-post evaluation seeking to recreate a control group from different sources of information to deal with the issue of not having a pre-intervention baseline (Jaitman and Brakarz, 2013). There have been a few other evaluations we draw on in this review, such as the one carried out by the IDB in 2011 and a survey conducted by the municipality in 2003 quoted in Brakarz and Aduan (2004). Note that while Soares and Soares refer to outcomes of Phase 1, the IDB evaluation covered Phase 2.



Riocinha Favela - Rio de Janeiro, Brazil. Photo: © David Brekowitz.

that were part of *Favela Bairro*.[8] Further, the improvements brought about by *Favela Bairro* have encouraged residents to invest their own resources in upgrading their homes (IDB, 2011). As the city invested in services, many residents became less fearful of eviction, giving them greater confidence to work on their homes (IDB, 1997).

Access to basic urban infrastructure, such as water and sanitation, has increased significantly with the programme. Soares and Soares' (2005) evaluation of Phase 1 found that increases in the number of water and sewerage connections were larger for programme beneficiaries. Through an analysis by income quartiles, they also report that the poorest benefitted the most. In addition, Tulier and Gossman (2013) also quote evidence of a significant difference in the satisfaction with services between *Favela Bairro* beneficiaries and non-beneficiaries (Table 2 overleaf).[9] Similarly, IDB's more recent evaluation, covering Phase 2 of the programme, finds a significant increase in the availability of most services for targeted *favelas*. For example, 81% of *favelas* included in the programme were connected to the city's water system compared with 55% in non-targeted settlements (IDB, 2011).

The impact of the programme on other outcomes (e.g. income, employment, health and education) appears to have been more limited, particularly in Phase 1 (Soares and Soares, 2005). That said, in Phase 2, there was a small increase in school attendance and a more substantial increase in day-care attendance (IDB, 2011), as social outcomes, such as child development, became more salient aims of the programme.

In the case of social capital, there are some examples of improvements made through the programme. Given the challenges posed by the strong presence of organised drug-related crime in some of these settlements, this was hard to achieve. Magalhães and di Villarosa (2012) refer to the case of the Villa Carioca settlement, where increasing community involvement through the programme led to changes in leadership, with the dominant drug trafficker expelled from the settlement. The authors also mention the case of the G-16, an organisation formed by the leaders

8 It is worth pointing out that the findings of Soares and Soares (2005), looking at the value of property as measured by rent, contradict these positive effects. Instead, they point to rental increases as being a city-wide phenomenon and that rents in *favelas* that benefitted from the programme did not increase more than those that did not participate. However, they caveat their findings, stating that the control group was low-income households, rather than other *favelas*, which may have been more appropriate.

9 In terms of other urban infrastructure, such as transport, the IDB's study (2011) found no impact. The time spent in reaching public transportation did not improve for beneficiaries from *Favela Bairro*, which is unsurprising as this was not a key element of the intervention.

of the first 16 favelas benefitting from the programme, which later became an NGO. Overall, the programme encouraged the emergence of new leaders who oversaw the implementation of the programme and maintenance of existing investments.

Generally speaking, there appears to be public support for *Favela Bairro*. A public opinion poll carried out in 2003 asked Rio residents to choose from a list of governmental programmes that should be given highest priority by the next mayor. *Favela Bairro* was chosen in first place in all three rounds of the survey. The same survey asked respondents about the most important project for the city and again *Favela Bairro* ranked first (Brakarz and Aduan, 2004).

Further, the programme was gradually scaled up through its different phases and became the principal component of Rio municipality's policy to upgrade all the city's *favelas*. Further, as Brazil's larger cities, like Rio, took the lead in slum upgrading, increasingly municipalities throughout Brazil have been moving from sectoral projects towards comprehensive upgrading frameworks aiming to include slums into the city fabric through tenure regularisation, social development initiatives and community participation schemes. Importantly, in 2001 Brazil introduced a City Statute confirming and broadening the legal and political role of municipalities in urban policy. The approach included in the City Statute highlights the need for a social approach to urban property rights, with deep consequences for urban upgrading and social inclusion (Cities Alliance, 2003). Pioneering projects such as *Favela Bairro* also laid the ground for other large-scale programmes such as the Growth and Acceleration Programme, a large-scale programme introduced during the second mandate of President Lula da Silva (2007–2010) to improve access to housing and sanitation (Tulier and Gossman, 2013).

Challenges

The programme faced some challenges. First, while the involvement of experienced technical staff can bring useful insights, they can also be pigeonholed by other experiences and call for solutions that are not appropriate for local conditions. One such example is the introduction of decentralised sewerage systems, which were suggested by specialists from the financing body as they were considered appropriate for areas of heavy rainfall in tropical countries. However, local plants ended up deserted and defaced, and even became hazardous to residents. This was because the state water and sanitation company was not used to operating and servicing local sewerage plants but using a centralised sewerage collection system instead (Magalhães and di Villarosa, 2012).

Second, working with local associations proved difficult due to capacity constraints and the prevalence of drug trafficking. Initially the programme had the option of working with small local organisations or large well-known NGOs. It often had to rely on the latter given the influence of drug traffickers on the smaller local ones. For these local associations to be sustainable and to increase their scale, long-term interventions are needed. Unfortunately, changes in government and an increase in drug trafficking (factors beyond the programme's control) interrupted the ability of the programme to undertake this type of intervention and help to build these smaller local associations' capacity (Magalhães and di Villarosa, 2012). In fact, while there have been instances where the programme helped to enhance social capital, they are limited in number and few of those outlived the end of the programme.

Third, although by now many *favelas* have been 'upgraded', full integration between residents of the *favelas* and the formal city is a much slower process. Perlman (2007) points to the fact that wide income disparities remain even between *favela* residents and their low-income neighbours living in the vicinities. In her words: 'There is no doubt in anyone's mind where the '*asfalto*' [road] ends and the '*morro*' [hill] begins', meaning that there remains a very visible divide between the formal city and the slums located on the hill slopes.

3.2 Medellín's PRIMED

About the programme

Medellín's *Programa Integral de Mejoramiento de Barrios Subnormales* (Integrated Programme for Improvement of Slum Settlements – PRIMED) is another 'integrated' slum upgrading programme often quoted as an example of good practice. It was set up in 1993 to respond to the challenges posed by the expansion of slum settlements in the city, particularly since the 1980s.

Table 2: Satisfaction with basic infrastructure: Favela Bairro beneficiaries versus non-beneficiaries

	Sewage	Drainage	Waste collection	Public lighting	Street network
Favela Bairro	80%	73%	87%	73%	80%
Non-participating favelas	40%	22%	35%	35%	12%

Source: Tulier and Gossman (2013)

Medellín is the second largest city in Colombia. The city's population grew as a result of an early industrialisation process. Urbanisation was not properly managed and many migrants looking for job opportunities ended up occupying land and building their own houses in slum settlements. From the 1980s, its population grew due to displacement from rural areas caused by armed conflict. The situation was compounded with the growth of the Medellín drug cartel and intensified paramilitary and guerrilla activity. This, alongside declining industry and unemployment, contributed to safety concerns in the city, particularly in low-income settlements. In fact, Medellín became known as the 'murder capital of the world' (Betancur, 2007).

In 1993, PRIMED was set up to deal with violence and social problems in these neighbourhoods. At the time the total population of Medellín's 87 informal settlements was 250,000, roughly 14% of the city's population (Imparato and Ruster, 2003; Betancur, 2007). Many of these high-density settlements were built on unregulated land, most notably the steep slopes of the Aburrá Valley (Barrows et al., 2013) which is prone to mud slides. The settlements lacked proper street systems, public facilities and spaces.

PRIMED was a pilot programme of cooperation between the city of Medellín and the Colombian and German governments (via the Federal Ministry for Economic Cooperation and Development, BMZ and the Development Bank, KfW). Its main objectives were to:

- improve the built environment – adapting houses, infrastructure (including access to water and sanitation), roads and public buildings, such as schools, health centres and leisure areas;
- provide secure land tenure – individual land titling;
- promote civic participation and community development;
- mitigate geological risks – removal and resettlement of families.

The programme put strong emphasis on community building and participation. It sought community involvement from determination of needs and establishment of priorities to implementation and maintenance of public spaces. More fundamentally, those in charge were convinced that if the community did not gain ownership, the programme would not have much of an impact on effective insertion of the area to the city, trust in government, its institutions and the rule of law (Betancur, 2007). The programme ran for ten years, from 1993 to 2003 and was split into two phases:

- Phase 1 (1993–1997/2000): sought to move a set of informal settlements with some previous but limited public assistance (categorised as 'Level 2' by Medellín's municipality) to settlements with a high level of government intervention close to meeting basic standards (categorised as 'Level 1'). Note that Phase 1 was extended to 2000 due to unexpected delays and the availability of extra funds.
- Phase 2 (2000–2004): was intended to target most marginalised settlements, those with no history of government intervention ('Level 3' according to the municipality) and sought to bring them up to 'Level 2'.

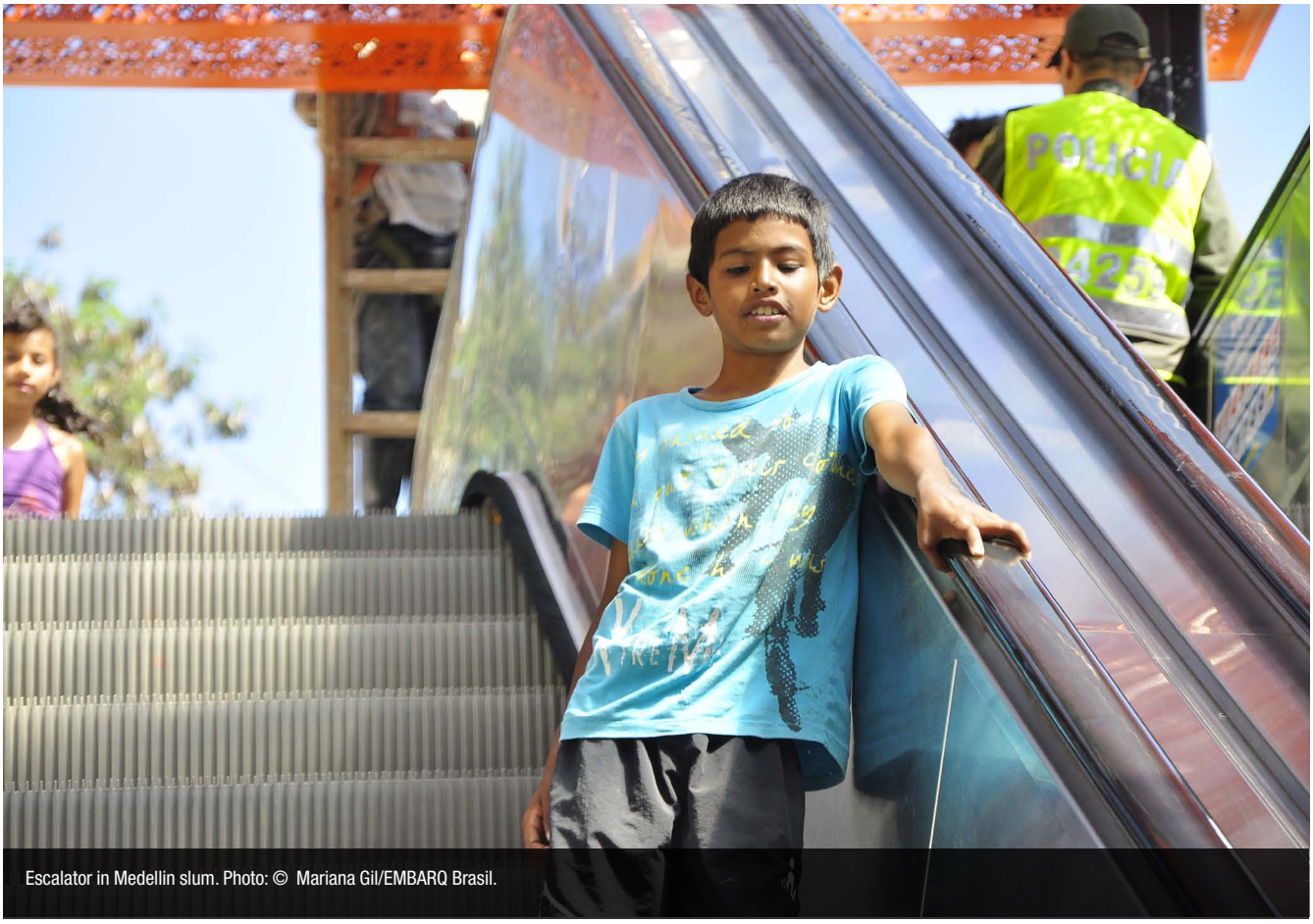
The executing agency was Medellín's Housing and Social Development Corporation, with PRIMED as the Programme Management Unit. It functioned largely as an autonomous entity directly under the Mayor. It also had access to the presidency via the Commission for the Metropolitan Area of Medellín. PRIMED's administrative structure facilitated inter-institutional cooperation, as it included a coordinating committee with a number of relevant agencies.[10] More fundamentally, there was a clear division of tasks, with PRIMED responsible for planning, coordination and administration, while government entities, NGOs and subcontractors were in charge of implementation of respective projects. In this way, the work of the different agencies was incorporated when and as needed while PRIMED focused on running the programme.

The total cost of Phase I of PRIMED was nearly $15 million (Imparato and Ruster, 2003), and the average cost per family was approximately $1,400. The sources of funding were the GTZ (German government, now GIZ Corporation for International Cooperation) (31%), the municipality of Medellín (30%), the national government (27%) and community contributions (12%). The programme also received technical assistance from the UN (Imparato and Ruster, 2003). Phase 2 was planned with funds that became available when KfW waived the 1997 interest payments on their loan, approximately 42,569 million pesos (Betancur, 2007), equivalent to over $20 million.[11]

In total the programme covered 30 settlements (15 settlements in each phase; Imparato and Ruster, 2003). Phase 1 benefitted around 51,000 people (one-fifth of the total population living in informal settlements in the city, Betancur, 2007) or 11,000 families (Imparato and Ruster, 2003). Phase 2 targeted an additional 60,000 people (Betancur, 2007), approximately 24% of the city's estimated slum population.

10 For more details, see UN Habitat, 2015.The committee had so many representatives that at times it was cumbersome to distribute responsibilities between different members. That said, most saw the benefits of joint working (Betancur, 2007).

11 Using the exchange rate for 2000.



Escalator in Medellin slum. Photo: © Mariana Gil/EMBARQ Brasil.

Evidence of impact

In a survey carried out in 1999, which measured household perceptions of the impacts of Phase 1, 96% of respondents indicated that their quality of life had improved (Betancur, 2007) and two-thirds (66%) indicated high levels of satisfaction with achieved home improvements with programme support.[12] While providing land titling proved more difficult than anticipated, public investment in the areas helped to provide tenure security and incentivise investments in home-building and upgrades. Interviewees were also satisfied with improvements on the built environment, including streets, roads and transport, with over 91% stating they were now better linked to the city (ibid).

Importantly, the programme also encouraged community participation: 84% of respondents reported that they had some level of participation in local government projects and 68% indicated that citizen participation had increased. Further, while 69% believed that the community had the ability to participate in project identification and design, 75% thought that it had the capacity to establish organisations for its own development (Betancur, 2007). Residents also indicated that they had the ability to watch over and respect the established norms to see that public spaces were not invaded, and to take care of the infrastructure and public facilities. PRIMED's beneficiaries also claimed that relations among neighbours and safety had improved (ibid).

Although the available evidence suggests impact was limited in terms of economic and social outcomes,[13] the programme made significant improvements to the physical conditions of these neighbourhoods and in increasing communities' participation in local planning decisions. In 1996, PRIMED was regarded as an example of 'best practice' at the second United Nations Conference on Human Settlements, due to its intergovernmental coordination, its provision of public service infrastructure and its land regularisation efforts (Blanco and Kobayashi, 2009).

12 Much of the available evidence is based on this survey. However, caution is needed as (1) the sample was relatively small with 300 households out of a universe of over 10,000 households; (2) two-thirds of respondents were direct beneficiaries of the programme through home improvement support and (3) the survey also focused on public perceptions, which may have changed by 1999 and could have been affected by PRIMED's high publicity (Betancur, 2007).

13 In terms of employment and income-generating opportunities, interviewees mentioned that the jobs created by the programme were temporary and not 'real' jobs (Betancur, 2011). This is in part a result of the absence of interventions to expand the job market or enable improved access to professional education and health services. Only 11% of respondents gave a positive score to the PRIMED skills training component. Satisfaction with health services was also fairly low, with only 15% reported to be satisfied with the services provided (Betancur, 2007).

Since PRIMED, other programmes have been introduced in the city, which follow many of the same principles of participatory planning, coordination between different government agencies, and integration of the urban poor into the city. In particular, *Proyectos Urbanos Integrales* (Integrated Urban Projects or PUIs) have dominated the city's work on slums since 2002 (Jaitman and Brakarz, 2013). PUIs have focused on improvements in local mobility, housing and public spaces, and also on the promotion of public education and culture. PUIs often started with a larger infrastructure project intended to 'catalyse' smaller public space projects and infrastructure interventions around a specific area (Drissen, 2012).[14] As with PRIMED, PUIs incorporate community participation in the design and implementation of the projects to ensure their viability and sustainability.

The first PUI took place in the north-east of Medellín, featuring the completion of the city's famous cable car, Metro Cable, in 2004 and various urban projects around the metro stations, such as the Reyes de España library completed in 2007 (Drissen, 2012). The first line of the cable car, built at a cost of under $30 million, was followed in 2008 by a second line in a different part of the city. Both were designed to accommodate up to 30,000 trips per day. A third line was opened in 2010 to connect the end of the first line with a natural park some 800 metres above the river valley (Allen et al., 2015).

The city invested in a comprehensive upgrading programme in the areas served by the cable-car lines (involving housing, increased public space, new libraries and schools, and economic support to local residents in the form of training and employment in public works). This has had a wider impact on residents' quality of life beyond transport improvements. One key feature is that the new public facilities are designed using high-quality materials, a deliberate reversal of the conventional approach of providing low-quality services for the poor.

A case study by UN-Habitat (2011) describes the economic and social impacts of PUIs. Private investment and trade in the area increased, with the creation of a commercial boulevard. Surveys also showed a significant reduction in rates of violence and insecurity, evidence of stronger social and community organisations and increasing levels of citizen participation.

Another well-celebrated PUI project has been the network of escalators taking people easily across the steepest parts of Comuna 13, one of the most dangerous settlements in the city. A large proportion of total capital investment in the city has been specifically devoted to neighbourhoods with the lowest living standards. In fact, investments in new transport and roads have targeted the poorest neighbourhoods, moving 'sequentially' from the most in need to the better-off (Rojas, 2010).

Due to this history of 'integrated' slum upgrading, since the early 2000s, Medellín has received repeated mentions for 'best practice' in improving residents' living conditions, and in 2012 it was named 'Innovative City of the Year' by *The Wall Street Journal* and the Urban Land Institute (Barrows et al., 2013). Its approach to slum upgrading through participatory planning, in particular, found its way into new legislation for urban reform as early as 1997 and is being applied in other cities in Colombia (Allen et al., 2002). Further, the success of urbanisation plans in Medellín has been the catalyst for similar projects in various cities across Latin America (Perten, 2011).

Challenges

However, the programme also faced a series of challenges, many in common with those faced by *Favela Bairro*. First, the process of issuing land titles proved to be much more complex than anticipated. Betancur (2007) argues that the targets for land titling were initially set too high and success was limited by a complex and lengthy judicial process. This led to the municipality deciding against land appropriations. Out of the 5,180 households targeted for titling, less than half (about 2,100 households) received formal tenure from PRIMED. Therefore, it comes as no surprise that, out of the topics assessed in the survey, land tenure received among the lowest levels of satisfaction (10% of respondents were satisfied with this aspect of the programme).

Second, community organisations lacked the technical skills required by the programme (e.g. institutional accountability, ability to handle subcontracts with highly formal procedures, and limited mobilisation power). In fact, the programme was criticised for not providing enough technical assistance to fill these gaps and did not ensure that the social capital built, in the form of community committees, was sustainable beyond the life of the programme.[15]

Third, the programme sought to develop a more apolitical and professional approach which clashed with previous arrangements with communities and old clientelistic relationships. The programme had to deal with the resistance from armed groups in the settlements who would demand payments or participation in projects. Further, changes in the control of settlements by different armed groups meant that different negotiations had to take place each time for projects to continue in a settlement (Betancur, 2007).

14 According to Jaitman and Brakarz (2013), the main PUI interventions included (i) generation or improvement of 125,000 square metres of public spaces, 18 new parks; (ii) culture promotion for all citizens through the Park Libraza y Santo Domingo and the Zonal Centre for Economic Development (CEDEZO); (iii) slum upgrading in Juan Bobo neighbourhood, pedestrian bridges, high level crossings and pedestrian paths, and (iv) community development activities (11 fairs with micro-entrepreneurs and 25 community events).

15 It has also been pointed out that in the initial stages of the programme participation in decision-making was still not a feature of PRIMED, and participants resented the fact that they were a source of unpaid labour (UN Habitat, 2015).

3.3 Land titling and housing improvements: Thailand's Baan Mankong programme

About the programme

In the early 2000s, the Thai government introduced a slum upgrading programme, *Baan Mankong* ('secure housing'), which has become known for its national reach and its strong focus on community participation in planning, implementing and funding housing and infrastructure improvements. *Baan Mankong* has a strong focus on tenure security as this was identified as one of the key challenges facing slum dwellers in Thailand (National Housing Authority, 1992).

Thailand's economic boom in the 1980s was accompanied by increased urbanisation; however, the lack of affordable housing for low-income residents contributed to the creation of slum and squatter settlements, particularly in the Bangkok Metropolitan Region, which accounts for almost 85% of slum settlements in Thailand (Pornchokchai, 2008). There are varying estimates of Thailand's slum populations, however, UN-Habitat estimates there were 5.5 million slum residents in 2005, accounting for 26% of the population (UN-Habitat, 2014).

In the face of increasing concerns about urban poverty, and after a period of experimentation with different programmes including the Urban Community Development Fund,[16] the Thai government introduced the *Baan Mankong* programme in 2003. The programme includes a wide range of upgrading and land tenure options to suit the needs of different communities. The programme starts with a city-wide survey of poor communities. Community networks along with NGOs, local government, academics and professionals then plan and implement an upgrading programme (Boonyabancha, 2005). Communities acquire secure land tenure or ownership with financial support from their savings groups and by obtaining loans via the programme. The programme is characterised by its flexibility in terms of the types of upgrading options available – ranging from on-site improvement and re-blocking to reconstruction and even relocation – and the tenure arrangements they can secure.

The land-tenure options depend on what people want and can negotiate including joint land ownership under community cooperatives (35% of *Baan Mankong* projects), lease contracts (long-term 44%, short-term or under 5 years lease 8%), or land-sharing agreements between landowners and the community (13%).[17] The programme also encourages linkages between communities within a city, meaning that member communities can often jointly negotiate their tenure, giving them greater bargaining power. Tenure arrangements are made with a collective land title, which helps to ensure that poor households retain the benefits.

Baan Mankong's implementation agency, the Community Organisations Development Institute (CODI) has a revolving mortgage fund. It extends housing loans that have amounted to 6.515 million baht ($191 million) over an 11-year period (CODI, 2014) for housing improvements. CODI provides housing loans so they are extended to community cooperatives at 4% annual interest and allocates a grant to each community of 20,000 baht ($610) per family.[18] Cooperatives then lend on to members, usually adding a margin on the interest to create a fund to cover arrears and default and to fund other community activities, expenses and some welfare programmes (Boonyabancha, 2009). CODI's finance provides a guarantee for landowners who would otherwise be sceptical about renting land to slum-dwellers on a long-term basis. In terms of access to utilities and basic infrastructure (water sewers, drains, paved roads), these are provided by the municipality/utility company as agreement is reached on particular community developments. In addition, *Baan Mankong* provides subsidies for some infrastructure.[19]

To access *Baan Mankong* loans communities are required to form cooperatives and develop housing in a collective way. They must save 10% of the amount they borrow in a community savings account in order to qualify for a loan. The repayment rate reported by CODI's monitoring system is about 95%, and CODI assists communities that face difficulties in repayment through technical support or by restructuring loans to make them more affordable (Bhatkal and Lucci, 2015).

CODI's institutional flexibility has gone a long way in enabling the implementation of a nationwide community-driven programme (Yap and De Wandeler, 2010). As a separate public institution, CODI can avoid some of the shortcomings of bureaucracy; it can apply directly to the government budget, thereby channelling money quickly to community networks instead of it

16 The Urban Community Development Fund was introduced in the early 1990s. It aimed to improve living conditions, support community development and increase the organisational capacity of the poor by promoting community savings and providing low-interest loans, with community participation at the heart of its activities (Boonyabancha, 2004).

17 See CODI website: www.codi.or.th/housing/results.html

18 See CODI website: www.codi.or.th/housing/results.html

19 The government also provides specific infrastructure subsidies (e.g. for onsite upgrading or repairs and rebuilding either onsite or after relocation). Additionally, communities can access subsidies for heavy land filling in low-lying places, installing household sewage treatment systems, or landscaping upgraded settlements, for aesthetic improvements to settlements or for constructing community meeting houses. Further, in cases of eviction or fire, communities can access funds for rehabilitation. Over and above these subsidies, CODI also subsidises communities' administrative costs through a grant equivalent to 5% of the infrastructure subsidy to support the various activities that accompany the upgrading planning process (Bhatkal and Lucci, 2015).

trickling in through ministries (CODI, 2003). CODI also seeks to institutionalise partnerships by including on its board representatives from government and communities through a People's Forum, comprising community leaders from each region. Importantly, given the need for flexible solutions, some of CODI's functions have been decentralised to regional offices.

Baan Mankong's national reach also sets it apart from most other slum upgrading interventions, which tend to be project-based and focused on a particular settlement or city. To date, about 930 *Baan Mankong* projects have been implemented in 320 cities/districts across 72 provinces, reaching 96,882 households or about 15% of slum dwellers in Thailand[20] with a budget of 6.5 billion baht ($191 million) (CODI, 2014).

Evidence of impact

While there are limited robust evaluations of the programme, available evidence suggests that improvements in a number of areas took place in the period under which the programme was operating. Security of tenure for Thailand's urban population rose from 88% in 1990 to 95% in 2010 (National Statistical Office, 1990; 2010). This progress is remarkable since it occurred in the context of increasing urbanisation. Perceptions data also indicates progress. Fear of eviction ranked second as a concern for slum dwellers in 1990, but had dropped to fifth place by 2006 (National Housing Authority, 1992; National Statistical Office, 2006).

The share of the urban population living in dwellings made of cement, brick or a combination of wood, cement and brick increased from 66.2% in 2000 to 84.3% in 2010 (National Statistical Office 2000; 2010). *Baan Mankong* has helped to distribute materials and also make money available for levelling floors to prevent flooding, replacing rusted corrugated iron roofing sheets, and reconstructing houses.

Baan Mankong communities often identify particularly vulnerable community members (such as disabled or elderly persons) and build rooms or community homes for them (Boonyabancha, 2009). Upgraded settlements often have rooms that can be rented, allowing those who cannot upgrade to remain in the community. Communities can also leverage *Baan Mankong* resources to construct community spaces such as meeting rooms, learning centres, libraries and nurseries.

There have also been improvements in access to public utilities. Thailand, a middle-income country, has enjoyed high levels of access to water, sanitation and electricity for the last 20 years. However, measures of coverage ignore issues related to quality and affordability, which are often of major concern in slum areas. Previously, slum communities were often not eligible for the provision of basic services by utilities and would pay a premium to buy these informally

Bangbua canal community in Bangkok. Photo: © Cak-Cak.

(Bhatkal and Lucci, 2015). Communities have used *Baan Mankong* infrastructure grants to establish drainage systems, communal septic tanks for sanitation, household connections for water supply and electricity, and in some instances grey-water treatment units. Tenure security has helped to gain legal access to water, sanitation and electricity and reduced their cost (UN-Habitat, 2006; Bhatkal and Lucci, 2015). An evaluation of Baan Mankong undertaken in 2011 reported a 10% reduction in monthly expenditure on water and a 5% reduction on electricity (TDRI, 2014; the evaluation covered 745 residents in 16 communities).

Finally, *Baan Mankong* has helped to achieve progress beyond physical living conditions. This evaluation also found that residents of *Baan Mankong* communities recorded greater access to credit and increased investment and income from businesses, in part due to better financial management capacity (TDRI, 2014). Further, tenure security has helped some to gain formal employment as many employers require a formal address (Bhatkal and Lucci, 2015).

Households participating in *Baan Mankong* also recorded non-monetary improvements (TDRI, 2014). For instance, children in participating households were found to spend an average of 3.6 more hours per week on studying and doing homework than those that did not participate. Average education expenditure per child increased by 40%, with resources made available through community funds. Importantly, communities participating in *Baan Mankong* have also seen greater social cohesion (ibid) as the programme has united members. Further and importantly, members of slum communities are now recognised as legitimate citizens as they participate in policy-making processes to upgrade their own living conditions.

Baan Mankong's national reach is a key differentiating feature of the programme, reaching the urban poor throughout the country and operating in a decentralised manner so that local government and, critically, communities play a key role in upgrading. It is worth noting that the principle of community-driven upgrading

20 Authors' calculation based on World Bank (2014b) and CODI (2014).

has extended beyond Thailand at the regional level through the Asian Coalition for Housing Rights (ACHR).[21] One of ACHR's largest programmes has been the Asian Coalition for Community Action (ACCA), which started in 2009 and built on the collective experience of *Baan Mankong* and similar initiatives in other countries in the region. ACCA aims to support community-driven city-wide upgrading of slums and to assist networks of community organisations in negotiating and working with local governments. ACCA has supported activities in 215 cities across 19 Asian countries (ACHR, 2014). In all 165 cities, communities are the primary actors in city-wide planning and implementation of projects; they conduct community surveys to identify and plan upgrading, tackle tenure issues, and work in partnership with local governments and other stakeholders, including community architects, to implement them.

Challenges

The programme has faced a number of constraints. First, it has struggled to address challenges relating to the inclusion of the poorest. The qualifying requirement that a community first needs to establish a savings network to prove its capacity for savings and financial management strengthens community ties but fails to recognise the heterogenous nature of urban populations in informal settlements. There may be considerable differences in sub-groups' ability to save (Payne, 2004; Usavagovitwong et al., 2013) and in their preferences for land tenure or upgrading options. That said, as mentioned above, *Baan Mankong* does include some provisions for homes for elderly people and/or those unable to pay.

Second, while the programme sought to reach 300,000 households, so far it has benefitted less than one-third of its original target.[22] The very nature and strengths of the programme – collaboration between community, policy-makers and experts – limits the possible speed and scale of change.

Finally, there are also concerns relating to the financial sustainability of the *Baan Mankong* programme. CODI's disbursement schedule to the programme exceeds repayments, resulting in cash flow problems (Usavagovitwong et al., 2013).

3.4. Access to utilities, with a focus on sanitation: an example from Mumbai

About the programme

Mumbai's community-built toilets are often cited in the literature as a remarkable example of community-driven action. In fact, it was an alliance of three organisations (henceforth the alliance) – the Society for the Promotion of Area Resource Centres (SPARC) along with two community-based organisations, the National Slum Dwellers Federation (NSDF) and *Mahila Milan* (Women Together)[23] – which helped produce community-designed, built and managed toilet blocks that serve nearly 900,000 low-income urban dwellers across the Mumbai Metropolitan Region and nearly 160,000 people in five other cities across India (Patel et al., 2015).

Municipal governments in India have typically invested little in extending provision of public utilities to slum households. One of the reasons for the lack of attention to sanitation in slum settlements was that many slums are located on land belonging to government institutions (e.g. the Railways, Port Trusts, or Airport Authority) which prohibited municipal corporations from providing amenities to these populations, fearing it would legitimise these settlements (Burra et al., 2003).

The little investment made in sanitation in low-income areas has generally been in public toilet blocks by local bodies. However, the number of toilet blocks has been inadequate for the population. This was compounded by municipal authorities in Mumbai often failing to spend the resources allocated for the construction of toilets (Burra et al., 2003).

In fact, a survey by *Mahila Milan* and the NSDF in slum settlements across Mumbai found the municipal corporation had provided one toilet seat for every 1,488 people (Burra et al., 2003). Of these, only about 20% were functional. As the construction of toilet blocks has traditionally been assigned to contractors that lack accountability to the communities they serve, the quality of construction was often poor and, in the absence of consultation with residents, the design and location were inappropriate (Patel, 2004). For instance, women hesitated to use facilities shared with men, and children often could not compete with adults over the use of the toilets, while the large adult-sized seat openings were inappropriate for them (Patel et al., 2015). Further, due to limited water supplies, toilets would get blocked and they often also had overflowing septic tanks. Due to these problems, communities had no sense of 'ownership' and most toilets would be in disrepair within months of being constructed, with broken doors and sites covered with garbage.

International agencies, on the other hand, did not view public toilets as an appropriate solution to the lack of sanitation, preferring individual toilets which were expensive and very difficult to develop in densely populated settlements with small winding alleyways between houses (Patel et al., 2015).

21 The ACHR was set up in 1988 as a network of Asian professionals, NGOs and community organisations working on urban poor housing development in Asia in collaboration with Slum/Shack Dwellers International (SDI), UN-Habitat, UNESCAP, CITYNET and the World Bank.

22 See CODI website: www.codi.or.th/housing/results.html

23 SPARC has been working in Mumbai with women pavement dwellers since 1984. The NSDF links and represents organisations of slum dwellers in India, with the largest membership in Mumbai. *Mahila Milan*, a collective of women slum and pavement dwellers, works closely with the NSDF.

Box 3: Slum upgrading: some examples from Africa

All the examples of interventions held as good practice discussed in this paper took place in Latin America or Asia. Historically, in many African nations, forced eviction and demolition of settlements has been common and in some countries continues to be seen as acceptable (UN-Habitat, 2010).

That said, city-wide slum upgrading programmes are increasingly being adopted in some parts of the continent. A growing realisation by some African governments that eviction has simply not worked is opening up avenues to scale-up slum-upgrading programmes (e.g. in North African countries like Morocco, Tunisia, that have a long history of large upgrading programmes and Egypt, in sub-Saharan African countries like Angola, Kenya, Mozambique, Tanzania, Uganda and South Africa) (UN-Habitat, 2008). We provide some examples of this change of approach below.

In the case of Luanda, Angola, the Urban Poverty Programme introduced in 1999 focused on community-managed infrastructure in a complex post-conflict environment. The programme has been implemented by a consortium partnership of NGOs (Development Workshop, CARE International, One World Action and Save the Children (UK) funded by the Department for International Development (DFID). The programme not only focuses on provision of access to water, sanitation and other basic infrastructure, but it is committed to building the capacity of local authorities, communities and civil society and promoting mechanisms of dialogue and engagement between these different actors (One World Action and Development Workshop, 2011).

The recent Chamanculo C project in Maputo, Mozambique is also a good example of a change of approach to slum upgrading. This project has been influenced by the Brazilian experience of multi-sectoral upgrading and focused on community building, economic livelihoods and services. The project is a partnership of AVSI with the Italian Cooperation, the Brazilian Agency for Cooperation, the City of Maputo, and Cities Alliance. It consists of activities integrating social development of the community and the strengthening of local associations that provide basic services to those living in the selected neighbourhoods (AVSI, n.d.).

In Uganda, in order to proactively manage the country's rapid urbanisation and improve living conditions for the urban poor, the government launched the Transforming the Settlements of the Urban Poor in Uganda programme in 2010. The programme is a multi-stakeholder collaboration supported by Cities Alliance, which includes the national government, local governments, the Urban Authorities Association of Uganda, Makerere University, Shack/Slum Dwellers International, UN-Habitat, and the World Bank. The programme focuses on building dialogue between the national government, local governments and communities. Investment is mobilised with the goal of inclusive planning and improved service provision in secondary cities. It also seeks to train the next generation of urban planners (Cities Alliance, n.d.).

Finally, Zimbabwe also offers a good example of a recent change in approach to urban poverty, following highly controversial and politically motivated slum demolitions. Social movements in support of the homeless surfaced in Zimbabwe in the late 1990s and intensified on a broader scale in response to the 2005 demolition campaign. In partnership with the City of Harare, an alliance of the largest social movements advocating for housing rights (the Zimbabwe Homeless People's Federation* and the Dialogue on Shelter) are now involved in a five-year (2010–2015) participatory slum-upgrading programme (the Harare Slum Upgrading Programme). This programme is aimed at profiling, documenting and initiating incremental upgrading of slums in and around the city. Implementation works through a partnership between the three entities (Muchadenyika, 2015). The Global Programme on Inclusive Municipal Governance of the Bill & Melinda Gates Foundation has supported this initiative to take off in Harare alongside programmes in 12 other African cities (ibid).

Sources: UN-Habitat (2008; 2010), Chitekwe-Biti (2014), Muchadenyika (2015), One World Action and Development Workshop (2011), AVSI (n.d.) and Cities Alliance, (n.d.).

* The Federation is one of 33 in the SDI network (Chitekwe-Biti, 2014). It was formed in 1998 and is a community-based organisation which emerged in the holding camps of Hatcliffe Extension and Dzivarasekwa Extension. These holding camps were set up in peri-urban areas for families evicted from city squatter settlements. Its main aim is to facilitate housing for the urban poor. As of 2014, the Federation has had a membership of more than 55,000 households and has facilitated access to housing stands for 15,000 households in Zimbabwe's 52 local authorities (Muchadenyika, 2015). The Federation's Gungano Fund, valued at $1million in 2014, relies on community saving and has a role that goes well beyond economic cushioning, and demonstrates that poor urban communities are serious about changing their circumstances for the better (Chitekwe-Biti, 2014).

Some of the earliest experiences with community toilet blocks took place in Mumbai, Kanpur and Bangalore between 1988 and 1996 as pavement dwellers and slum households began to transform themselves into organised communities (Patel et al., 2015). Under the alliance's model, communities constructed and funded the maintenance of toilets while the government provided construction materials and mains infrastructure.

For reasons of cost and space, it was recognised that constructing individual household toilets – even if preferable – was unrealistic (Burra et al., 2003). As women's groups assessed available options, the concept

of city-financed but community-managed toilet blocks with separate facilities for men, women and children and provision for maintenance came about. Community toilets were cheaper per household, and could include large tanks to ensure regular water supplies. In addition, community toilets provide everyone – including the poorest – with sanitation, with the better-off gradually building individual facilities for themselves (Patel et al., 2015; Patel, 2004).

In 1994, the World Bank provided the Municipal Corporation of Greater Mumbai (MCGM) with a loan for a large sewerage and sanitation project including a Slum Sanitation Programme (SSP) (Patel and Mitlin, 2001). Recognising the need to improve sanitation in low-income areas, Rs 200 million ($5.8 million) of the Mumbai Sanitation Development Project was assigned to build community toilets. SPARC, which had been constructing community-built toilet blocks in five cities and had been working with government officials on supporting community-driven and managed sanitation, was invited to participate in the programme.

However, the World Bank wanted a competitive bidding process, which pitted one community against another to be chosen as demonstration projects, and subcontracted NGOs instead of communities to do the work (Patel et al., 2015). Further, it proposed a three-part procurement strategy, which separated mobilisation, design and construction, with different NGOs for each process. While this was useful to ensure technical and financial transparency in large engineering projects, the alliance found it a cumbersome approach for community toilet blocks and wanted to undertake all three parts, optimising local involvement and ownership (ibid.). Citing differences in approach, the alliance withdrew.

Not enjoying much success with their chosen approach, the World Bank and the MCGM reached out to the alliance again in 1998 after it constructed 114 community toilet blocks in another city, Pune (Patel et al., 2015). In 2000 SPARC won a tender to build 320 toilet blocks with 6,400 seats in 20 wards in Mumbai (Burra et al., 2003).

The alliance would first locate areas suitable for construction, and then approach communities to understand whether they wanted a toilet, had space to construct one, or had an old dilapidated toilet they wanted to reconstruct, and with the SSP within the MCGM to check if the location was acceptable (Patel et al., 2015). They would then survey the slum to estimate the needs of the community and the number of people willing to participate. The alliance then assisted in physically clearing space, planned the layout, submitted detailed architectural and structural drawings to get the plans confirmed, and drew up estimates. It was also involved in appointing a contractor. If the contractor was a *Mahila Milan* or NSDF member, the alliance would provide them with a grant for 10% of the budgeted cost to start the project in order to support community-based organisations as implementing partners (ibid.). Other companies or contractors had to provide 15% of total project costs before work began. In total, 5% of the contract funds were retained in case of defects, and the balance was paid to the contractor after construction (ibid.). Once completed, the alliance would organise an inauguration of the community toilets by a local elected representative of the community's choice – in part to help build engagement with the city authorities and bring sanitation for slums into public dialogue (Burra et al., 2003).

Unlike the previous municipal models, the community toilets are bright and well ventilated, with grills high up on the wall between back-to-back stalls, gaps at the top of the doors and on side walls, and better quality construction, which makes cleaning and maintenance easier (Burra et al., 2003). They have large water storage tanks to ensure water for handwashing and maintenance (unlike earlier public toilets). Separate entrances and facilities for men and women give women more privacy (ibid.). The children's toilets were specially designed to include smaller squat plates, handles, and smaller pit openings (Patel et al., 2015). Many toilet blocks also included toilets designed for easier use by the elderly and the disabled (Burra et al., 2003).

The alliance also helped communities to establish maintenance systems. All households are provided with a family pass. Families make monthly payments of between Rs. 30 and 60 ($0.47-$0.95) for use of the facility (Patel et al., 2015). The community also appoints caretakers for the block, who are paid from the maintenance budget. This ensures that the toilets are well maintained.

As they are built in central locations, sites are kept clean and informally monitored (Patel et al., 2015). In blocks with sufficient space, a community hall was built or a meeting space on a terrace on top. Small fees, charged for the use of these spaces, help to cover maintenance costs and oblige caretakers to keep the complex clean. Even with these innovations, toilet blocks cost 5% less than the municipal corporation's public toilets (Burra et al., 2003).

While the initial experience was largely World Bank-funded, it demonstrated what organised communities could do to solve their own sanitation needs. This approach was then scaled-up, moving from grant-supported pilots to involving the municipal government as an active partner, with slum sanitation figuring in their budgets (Patel et al., 2015).

In terms of cost sharing, the government provides the funds for toilet construction and the 'big pipes' or city-wide infrastructure, including trunk mains and main sewers; generally, only city authorities can manage these (Burra et al., 2003). As toilet blocks are connected to the city water supply and sewers, this cuts unit costs, as no pumps are needed to tap groundwater or septic tanks to accommodate sewage. On the other hand, toilets and drainage lines within settlements need small pipes, and communities can design, build and manage these themselves while constructing the community toilets (ibid.).

In 2007, the work expanded to include the Mumbai Metropolitan Region (MMR) which includes Mumbai and 16 other municipalities (Patel et al., 2015). A project called

Table 3: Scale of community toilets (1998-2014)

City	Construction period	Total blocks	Total seats	No. of users
Mumbai	1999	320	4,047	202,350
	2006	150	3,000	150,000
	2011	90	1,800	90,000
13 Municipalities in Mumbai Metropolitan Region	2007	373	8,473	423,650
Outside Mumbai				
Pune	1998	111	2,062	103,100
	2004	23	259	12,950
Vijaywada	2004	17	128	6,400
Vizag	2005	19	323	16,150
Tirupur	2005	14	254	12,700
Pimpri Chinchwad	2006	7	90	4,500

Source: Patel et al. (2015)

Nirmal MMR Abhiyan (Campaign for a Clean MMR) financed community toilets in slums in these municipalities. Under this scheme, NSDF and *Mahila Milan* surveyed 13 cities and towns and designed a tender to call other NGOs to undertake construction. In all, 373 toilet blocks were to be constructed with 8,473 seats for 423,650 people (ibid.).

Evidence of impact

The programme delivered more appropriate, cheaper toilets, addressing the needs of different groups, such as women, children and the elderly. While there is no hard evidence relating to the situation before or after the introduction of the community toilets, these are bound to have had an impact on health outcomes and on safety, particularly for women and girls. Before the introduction of separate toilets, some women hesitated to use facilities shared with men. To protect their modesty, they often waited until nightfall to defecate in the open, endangering their health and safety (Burra et al., 2003).

Critically, one of the biggest impacts brought about by the construction of community toilets has been a fundamental change in roles as poor urban communities designed, built and managed their own toilets. The poor no longer had to beg the city administration for access to sanitation, but rather owned the process. As this process spread to other cities in India, it was not just about building toilets, but about building organised communities (Patel et al., 2015). While slum dwellers often face barriers to employment, this process also gave them the opportunity to become contractors (individual and sometimes as a collective), and develop new skills to enhance job options in the future (ibid.).

Further, the growth of *Mahila Milan* networks encouraged acceptance of the value of women's knowledge and participation, and helped develop their capacities to undertake surveys, establish savings groups, and initiate dialogue with the state (Patel, 2004). By drawing women into the development of toilet blocks from the outset, the alliance made the space for women to become trustees of resources within communities. Understanding and participating in construction has enhanced their ability to manage and maintain, and train others.

Through its work and proof of concept the alliance has strengthened its partnership with local government, particularly with the Additional Municipal Commissioner for Projects in the MCGM. City authorities now recognise they need to be involved not only in funding and supervising the construction of community toilets but also in their maintenance, working together with the community cooperatives. There is an ongoing process to develop a protocol on how to build and strengthen city and community capacity to manage these assets, with local government and community organisations working alongside each other (Patel et al., 2015).

This demonstration of the effectiveness of community-driven development has led to the alliance participating in other housing programmes (Satterthwaite and Mitlin, 2014). For example, it has participated in the Basic Services for the Urban Poor (BSUP) scheme of the Jawaharlal Nehru National Urban Renewal Mission, a large-scale programme to improve the quality of life and infrastructure in cities. Under the BSUP, the alliance is involved in in-situ upgrading and in improving infrastructure in settlements in Puri, Orissa and Pune (Satterthwaite and Mitlin, 2014). It has also

Mumbai slum. Photo: © cerulean5000.

undertaken an assessment of the BSUP programme in 11 cities, which highlighted some of its limitations. This included the fact that many upgrading projects included demolishing buildings and rebuilding, but often units were of poor quality, had inadequate access to utilities and did not provide temporary accommodation to those displaced (Patel, 2013).

Challenges

There are at least two key challenges facing the programme. The first one relates to achieving full coverage of all slum locations in the city. The process is 'city-wide' in the sense that it is institutionalised within the city's systems, but not yet in the sense that everyone has been reached. In many Mumbai slums there is no space for community toilets. If toilets were to be built in those areas, some huts would have to be removed to create space. The challenge in these situations is developing a policy to relocate households that agree to move into tenements located nearby.

The second challenge highlights some of the practical difficulties of collaboration between different stakeholders. In the past there have been challenges where the municipal government refused to connect the community toilets to the city's main sewer network. In the initial stages in particular, the alliance faced various difficulties in working with the municipal corporation, in large part because the latter was not used to working with NGOs (Patel et al., 2015). For instance, constant delays in obtaining permission to build toilets meant that the actual building time was extended. This led to SPARC having to provide much of the funding upfront. Over the years, however, as different stakeholders have gained experience of working together, relationships have strengthened. As mentioned above, the alliance has developed a productive relationship with the Additional Municipal Commissioner of Mumbai, which has led to further engagement and support from municipality staff for community toilets.

Box 4: A note on improving the provision of affordable housing

While policies to improve living conditions in existing slums are needed, unless other interventions are put in place at the same time seeking to expand the provision of affordable housing, the formation of new slums will continue. Such interventions will require cities to anticipate and plan for future urban growth and to provide affordable housing. Land-use planning along with infrastructure development will be key to meeting the current and future demands of the poor for housing and public services. Further, in cities where more than half of the population lives in slums, it is not slum upgrading that is needed, but city upgrading. The ability to plan, allocate land, and raise revenue to service land is paramount.

Housing policies aiming to enlarge options for low-income communities often involve: provision of social housing for home owners (e.g. through subsidised credit, housing finance, and construction by the public sector and/or private developers specialising in this); provision of affordable rental housing (e.g. through rent control or subsidies for affordable rent); and provision of serviced sites ready for incremental self-help building.

Some of the most important challenges facing programmes subsidising ownership for low-income families are related to their spatial allocation. They are often located in the periphery where land is cheaper, with implications for low-income families in terms of affordability, mobility, connectivity, and access to jobs (The Rockefeller Foundation and the New School, 2015). In addition, they are often built from low-quality materials and there are often questions about the level of subsidy that ends up going to construction companies. Further, providing social housing for free is often too expensive to produce in the quantities required (Gilbert, 2012). The most common policies and programmes for social housing involve different levels of financing and construction, and different solutions that align with the needs and the capacities of the poor (Greene, 2010). However, the barriers to finance mean that these types of policies often fail to reach the poorest. Arguably, rental rather than ownership-based housing schemes are better suited to address housing needs of the urban poor. Rental options can reduce housing costs and cater to seasonal migrants' short-term housing needs. However, few countries, with the exception of the Republic of Korea (Park et al., 2011), and China have large-scale subsidised rental schemes targeting those with the lowest incomes. Again, this may be a result of the large funding required for these initiatives to be effective.

Finally, sites and services schemes are often regarded as a more affordable alternative to the provision of social housing. The provision of serviced land can trigger an incremental building process. Incremental construction only requires few initial resources from governments – provision of serviced land – and families then build according to their resources and needs. Incremental building often involves low-density construction, meaning that such programmes require the availability of cheap (peripheral) land, which is more likely in smaller cities. One of the difficulties of these programmes is that families need to finance the construction process over long periods of time, particularly when they have competing needs. State provision of finance for home improvements may be needed to accompany these programmes. Wakely and Riley (2011) argue that there is a strong case for incremental housing to be a major part of comprehensive urban development strategies. In their view, this intervention can deliver more safe dwellings for low-income groups than other conventional approaches. Further, by planning areas for low-income housing development, governments can set strategic priorities and an integrated urban development strategy, rather than ad hoc measures (ibid.).*

In short, urban housing strategies need to include a range of programmes and approaches, from support to incremental housing to the provision of good quality public housing, including rental options for the lowest income groups who may not be able to invest in ownership (Wakely, 2014).

Sources: Gilbert (2012), Greene (2010); Park et al. (2011), The Rockefeller Foundation and the New School (2015); Wakely and Riley (2011); and Wakely (2014).

*For more details on the case for incremental housing see Wakely and Riley, 2011.

4. What works in slum upgrading?

Drawing on the evidence from the previous section, we outline a series of insights on what works in slum upgrading. What role does community participation play? How can programmes ensure they reach the poorest? What approaches to tenure work best? And are particular design features and institutional arrangements more effective?

Community participation and working in partnership

Perhaps the most important common feature of most programmes reviewed has been their recognition of the key role of slum communities in improving their own circumstances. To different degrees, communities were involved in the planning and design stages of the programmes and often in implementation as well.[24]

This means that programmes are much more likely to be effective as they are tailored to addressing slum dwellers' top concerns. More fundamentally, participatory processes trigger deeper changes in community development, as marginalised slum communities become active participants in the policy-making process. For instance, in Thailand's *Baan Mankong* programme, community representatives are also part of the programme's implementing agency's board.

More generally, these experiences have shown the benefits of working in partnerships. Cooperation between different actors – the government, experts (e.g. architects, engineers), civil society organisations and communities – helps leverage the comparative advantage of each of these stakeholders. For example, in Brazil's *Favela Bairro*, the Urban and Social Orientation Offices were set up as public offices connecting residents with architects, engineers and social workers to work together to envisage solutions to the settlements' challenges. In the case of Mumbai's community toilets, civil society organisations' collaboration with local government was critical for connections to city-wide infrastructure. Building leadership within the community to maintain and manage new infrastructure has also been recognised as an important aspect of upgrading in many of the programmes reviewed. Further, investing in good quality infrastructure can help to build community relations and capacity as shown in some of the examples discussed above (in the same vein, badly constructed infrastructure can undermine the confidence of the community).

Incorporating the needs of the poorest

Reaching the poorest within slum settlements is often hard. The programmes reviewed here have sought to cater for the needs of the most marginalised in different ways. In the case of *Favela Bairro* and the second phase of PRIMED in Colombia, the choice of which settlements to target was based on need.

In the case of Mumbai's community toilets, the design of the intervention sought to take into account the specific needs of the poorest and different groups. Although most sanitation interventions favour individual toilets, the blocks in Mumbai were constructed as community toilets so they would benefit the entire community without the heaviest cost falling on the poorest. The design also took into account the specific needs of women and children. The payment systems were also designed to ensure that all could afford them (for example, by charging low prices and introducing family cards).

In the case of Thailand's *Baan Mankong*, although the financing model of the programme means that it is more difficult for the poorest to take part, the programme includes provisions for the poorest: the construction of community housing for older and disabled people, rental houses or rooms for those who cannot afford upgrading, and building shelters for the homeless (Boonyabancha, 2009). This means that the poorest can live within their community even if they cannot afford to upgrade through *Baan Mankong's* loans.

Recognising the importance of tenure to access utility services, including pragmatic solutions

The recognition of the importance of tenure as a way of accessing utility services has also contributed to the success of these programmes. Tenure security is also critical to the quality of housing; fear of eviction means households cannot invest in better quality structures.

For instance, tenure security is one of the main pillars of the *Baan Mankong* programme in the context of fear of evictions being a major concern for slum dwellers in the country. The programme included a series of tenure options, including long-term leaseholds. Crucially, CODI's support strengthened slum communities' position in negotiating tenure or land-sharing options with landlords.

But granting titles is not the only way of ensuring tenure security. Some governments have devised pragmatic solutions to overcome the political difficulties or the slow and complex processes involved in providing slum households with land ownership. *Favela Barrio* and PRIMED provided slum dwellers with *de facto* use of the land, with governments spending resources on improving shared facilities. In the context of these two programmes, this was enough to guarantee tenure security, enabling access to utilities and incentivising investments in home improvements.

24 Arguably, Medellín's PRIMED, even though it included community participation particularly in later stages of the programme, was driven by a professional team, within an elected city government.

Flexibility in programme design and implementation

One of the features that seems to have contributed to success has been the importance of giving slum households a range of upgrading options through flexibility in programme design, allowing communities to tailor interventions according to their needs. This was particularly the case in the *Baan Mankong* programme, which includes a wide range of upgrading options to suit the needs of different communities. Similarly, the community toilets in Mumbai emerged through an iterative process to improve design, technology and construction approaches. Even when progress is slow, the concept and process should not be modified to obtain quick results (Burra et al., 2003). Lessons from Mumbai in particular suggest that progress accelerates once pilots successfully demonstrate benefits and are scaled-up.

Scaling up the interventions

All the interventions reviewed went beyond a project in a specific settlement. They all were conceived at least at city scale and/or triggered relevant spin-off programmes with a wider reach. In fact, *Baan Mankong* is one of the few programmes with national reach and a highly decentralised operation. Within cities, the programme encourages horizontal linkages between communities from different settlements. This helped to strengthen community networks, learn from others' experiences, and allow communities with common landowners to jointly negotiate for their tenure.

Further, some of the slum upgrading efforts had impacts beyond the city that implemented them. *Favela Bairro* led to spin-off projects such as the Growth and Acceleration Programme, a programme introduced to improve access to housing and sanitation. Similarly, PRIMED's approach favouring inter-sectoral and participatory planning found its way into new legislation on urban reform, has been taken up by other subsequent programmes in Medellín, and is being applied in other cities in the country.

Effective implementation agencies

The success of the programmes also depends on having a nodal agency with a clear mandate. In *Favela Bairro*, having programme funding and execution go through just one agency made the process much simpler and was a factor that contributed to the programme's success (UN-Habitat, 2015). Similarly, PRIMED enjoyed a relatively independent administrative structure, with easy access to the sources of power. In addition, both *Favela Bairro* and PRIMED had mechanisms to coordinate the work of different agencies and actors, facilitating inter-sectoral collaboration. The same can be said of CODI, *Baan Mankong's* implementation agency, which enjoyed relative autonomy, a decentralised structure facilitating collaboration between different actors, and a clear mission (Yap and De Wandeler, 2010).

Wider enabling factors

Of course there were other factors beyond programme design and the characteristics of the agencies in charge that made the implementation of these programmes possible. In the cases of *Favela Bairro* and PRIMED, there was a strong commitment from the municipality to these programmes. In the case of Brazil, with the election of President Lula da Silva, the push for a social agenda became even more salient. Similarly, *Baan Mankong* was introduced in the context of the pro-poor populist politics of Thaksin Shinawatra and his Thai Rak Thai party, and was also the result of the leadership of particular individuals working in the housing sector. It also had an earlier precedent, the Urban Communities Development Office, which had been set up to address urban poverty prior to *Baan Mankong* and had introduced neighbourhood saving schemes (Satterthwaite and Mitlin, 2014).

In many cases politicians' decisions were also the result of continuous pressure from below. For example, in Thailand, slum networks played a significant advocacy role on the rights of poor people through demonstrations and campaigns for land reform, tenure security and wider civil rights issues (Archer, 2009). In the case of Mumbai, the fact that the government awarded a contract to construct a public toilet to the users themselves was a result of years of discussion and advocacy by the *Mahila Milan* community networks.

The availability of finance was another enabling factor. In many of the cases reviewed, financing was available through loans from donors or multilateral banks or a mixture of the latter and own resources. In the case of Thailand, the programme was financed by a combination of community funds and government loans. Sustained economic growth led to higher public revenues and greater fiscal space for public spending (some aspects of the programme were financed through grants, plus upfront capital was required to grant loans), while the availability of jobs, even if precarious, allowed low-income families to save through community funds and repay their loans.

'Perhaps the most important common feature of most programmes reviewed has been their recognition of the key role of slum communities in improving their own circumstances.'

Box 5: Slum upgrading DOs and DON'Ts

While the experiences highlighted in this working paper point to aspects that worked well, there are also plenty of instances where the same mistakes are made time and again. Based on a literature review and interviews with stakeholders we selected a shortlist of best practice and common mistakes.

Do:

1) ensure community participation in slum upgrading and work in partnership, fostering collaboration between stakeholders;
2) focus on both tenure and access to basic infrastructure (including pragmatic approaches to the former);
3) build flexibility in the design and implementation of slum upgrading programmes to account for different communities' specific needs, including the poorest;
4) provide a city-wide framework policy to enable 'scale' with local-level implementation since each settlement may face differing circumstances;
5) have a lead agency with a clear mandate that can run the programme and coordinate the work of other government agencies and actors;
6) in addition to slum upgrading, plan for urban expansion and provide affordable housing; in cities where more than half of the population lives in slums, city upgrading rather than slum upgrading is required.

Don't:

1) evict slum dwellers; fear of eviction and insecure tenure increases poor communities' vulnerability and prevents them from making improvements to housing and basic infrastructure;
2) relocate them to cheaper land far away from job opportunities; it does not improve the well-being of the urban poor;
3) provide poor quality materials and infrastructure; these can undermine the confidence of the community;
4) operate in silos (different departments of government need to work together for coherent implementation e.g. access to utilities plus financing for housing);
5) while communities may be able to upgrade on their own, don't avoid supplementing this by connections to city-wide infrastructure;
6) try to stop rural–urban migration (while improvements in rural development and agricultural productivity in poor countries are needed, efforts to restrict rural–urban migration do not work; migration flows will continue).

Sources: Authors' elaboration based on a short survey with over 10 experts, UN-Habitat (2015) and Satterthwaite and Mitlin (2014).

5. Looking ahead: how can governments meet the future challenges of urbanisation?

Urbanisation is one of the greatest transformations of the 21st century. How governments, particularly in Africa and Asia, deal with it will have economic, social and environmental consequences for decades to come.

Increasing urbanisation brings with it several opportunities, not least in terms of access to labour markets and better amenities. But it also puts increasing pressure on the provision of affordable housing and access to utilities. The current estimate of 1 billion people living in slum areas could treble by 2050 if this challenge is left unaddressed (UN DESA, 2013). These trends will need to be reverted if the SDG target on access to adequate housing and services is to be met.

It is in this context that this review sought to highlight what worked well in improving the physical living conditions in slum settlements drawing on four examples of programmes held as good practice from around the world: Rio de Janeiro's *Favela Bairro*, Medellín's PRIMED, Thailand's *Baan Mankong* and Mumbai's community toilets.

As we reflect more widely about the increasing pressures on housing and access to services that developing countries will face, three key challenges emerge that are relevant for future policy.

1. Upgrading existing slums is necessary but not sufficient. Slum-upgrading interventions that build on the principles discussed in this review are much needed, but they also have to go hand-in-hand with planning for urban expansion, the provision of affordable housing, and access to utilities for the urban poor. In cities where the majority of people live in slums, it is 'city' rather than 'slum' upgrading that is required.

2. Stronger capacity, finance and urban governance are required if the challenges posed by urbanisation are to be tackled effectively. Local governments in many developing countries often lack the power, capacity and resources required to plan for urban expansion and improve conditions in existing slum settlements. Dealing with the challenges of urbanisation requires strong local authorities, technical expertise, financial resources, and coordination between different sectoral portfolios and levels of government. In addition, institutions at regional and national levels also need to have an aggregate picture of the current and estimated future housing and basic infrastructure needs in fast-growing urban areas.

3. Developing a good evidence base of the existing needs of the urban poor and estimates of future need. Ultimately, better evidence is required to plan appropriately, assess affordable housing needs and project the amount of land required for expansion. This means reliable population estimates and assessments of density changes. There are still too many evidence gaps constraining good policy, and better evaluation is needed to learn from existing programmes. Even well-known programmes regarded as examples of good practice have poor baseline information, which makes it very difficult to assess their impacts over time.

Governments and donors are increasingly aware of these shortcomings and are turning their attention to the needs of fast-growing urban areas. The hope is that more technical and financial resources will be channelled quickly enough to address these growing challenges, so that urbanisation can be managed effectively and countries can make the most of the opportunities on offer.

'Urbanisation is one of the greatest transformations of the 21st century. How governments, particularly in Africa and Asia, deal with it will have economic, social and environmental consequences for decades to come.'

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Annex: Additional tables

Table 4: Top 20 countries by absolute change in the urban population, thousands (2015-2050)

Rank	Country	Urban population (thousands) 2015	Urban population (thousands) 2050	Absolute change in the urban population (thousands)
1	India	419, 939	814, 399	394, 460
2	China	779, 479	1, 049, 948	270, 469
3	Nigeria*	87, 681	295, 480	207, 799
4	Indonesia	137, 422	227, 770	90, 348
5	United States of America	265, 361	350, 338	84, 977
6	Pakistan*	72, 921	155, 747	82, 826
7	Democratic Republic of Congo*	30, 275	93, 864	63, 589
8	Bangladesh*	54, 984	112, 443	57, 460
9	Tanzania	16, 528	68, 569	52, 041
10	Ethiopia	19, 266	70, 522	51, 256
11	Philippines	45, 173	88, 381	43, 208
12	Brazil	174, 508	210, 238	35, 730
13	Mexico	99, 245	134, 828	35, 583
14	Egypt*	36, 538	68, 864	32, 326
15	Iraq	24, 847	55, 653	30, 806
16	Kenya	11, 978	42, 636	30, 658
17	Uganda	6, 463	33, 367	26, 903
18	Iran	58, 316	84, 358	26, 042
19	Sudan*	13, 391	38, 388	24, 996
20	Angola	10, 052	34, 676	24, 624

*Source: UN DESA (2014). Countries with * are considered fragile states by either the World Bank's Harmonised List of Fragile Situations FY14 and/or the Fund for Peace's Fragile States Index 2014 (Fund for Peace, 2014)*

Table 5: Top 20 countries by change in the proportion of the urban population (highest to lowest, 2015-2050)

Rank	Country	Urban population in 2015 (%)	Urban population in 2050 (%)	Change 2015–2015 (%)
1	Rwanda*	28.8	52.6	23.8
2	Lao People's Democratic Republic	38.6	60.8	22.2
3	Burkina Faso	29.9	52.0	22.2
4	Thailand	50.4	71.8	21.4
5	Bangladesh*	34.3	55.7	21.4
6	Tanzania	31.6	53.0	21.4
7	Namibia	46.7	67.8	21.1
8	Myanmar*	34.1	54.9	20.8
9	Mali	39.9	60.3	20.4
10	China	55.6	75.8	20.2
11	Viet Nam	33.6	53.8	20.1
12	Madagascar*	35.1	55.0	19.9
13	Angola	44.1	63.8	19.8
14	Eritrea*	22.6	42.1	19.5
15	Yemen*	34.6	54.1	19.5
16	Lesotho*	27.3	46.7	19.4
17	Nigeria*	47.8	67.1	19.3
18	Guinea*	37.2	56.3	19.1
19	Pakistan*	38.8	57.5	18.7
20	Afghanistan*	26.7	45.3	18.6

*Source: UN DESA (2014). Countries with * are considered fragile states by either the World Bank's Harmonised List of Fragile Situations FY14 (World Bank, 2014a) and/or the Fund for Peace's Fragile States Index 2014 (Fund for Peace, 2014)*

Table 6: Top 20 fastest growing mega-cities (highest to lowest by percentage change, 2015-2030)

Rank	Country	Urban Agglomeration	Urban population (thousands) 2015	Urban population (thousands) 2030	Change 2015-2030 (%)
1	Tanzania	Dar es Salaam	5,116	10,760	110
2	Angola	Luanda	5,506	10,429	89
3	Nigeria*	Lagos	13,123	24,239	85
4	Democratic Republic of Congo*	Kinshasa	11,587	19,996	73
5	Bangladesh*	Dhaka	17,598	27,374	56
6	Pakistan*	Karachi	16,618	24,838	49
7	Pakistan*	Lahore	8,741	13,033	49
8	India	Bangalore	10,087	14,762	46
9	India	Ahmadabad	7,343	10,527	43
10	India	Hyderabad	8,944	12,774	43
11	China	Guangzhou, Guangdong	12,458	17,574	41
12	India	Chennai (Madras)	9,890	13,921	41
13	India	Delhi	25,703	36,060	40
14	Viet Nam	Ho Chi Minh City	7,298	10,200	40
15	China	Beijing	20,384	27,706	36
16	Indonesia	Jakarta	10,323	13,812	34
17	China	Chengdu	7,556	10,104	34
18	India	Mumbai	21,043	27,797	32
19	China	Tianjin	11,210	14,655	31
20	Egypt*	Cairo	18,772	24,502	31

*Source: UN DESA (2014). Mega-cities of over 10 million in 2030 considered in this table. Countries with * are considered fragile states by either the World Bank's Harmonised List of Fragile Situations FY14 (World Bank, 2014a) and/or the Fund for Peace's Fragile States Index 2014 (Fund for Peace, 2014)*

Table 7: Top 20 fastest growing cities (highest to lowest by percentage change, 2015-2030)

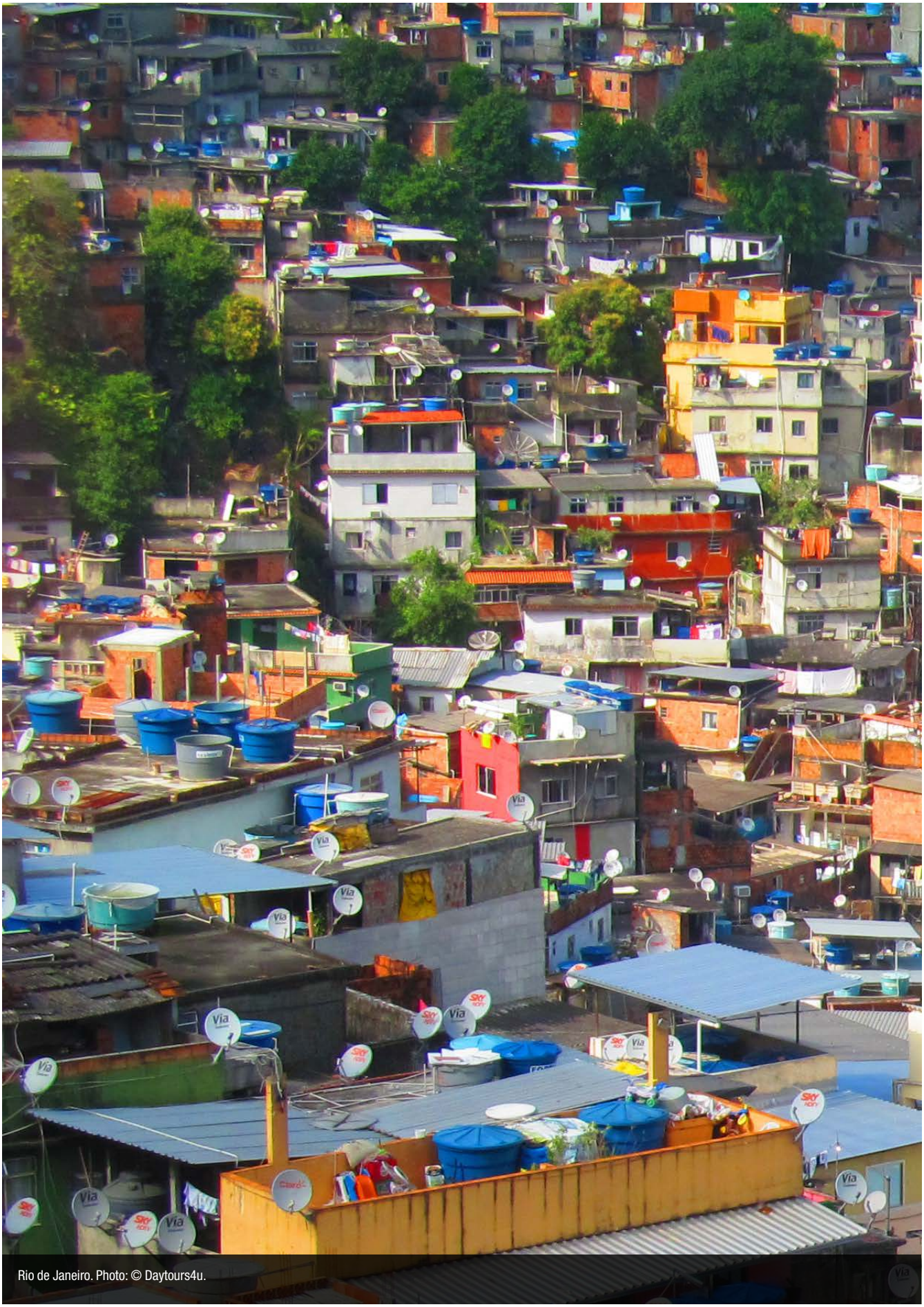
Rank	Country	Urban Agglomeration	Urban population (thousands) 2015	Urban population (thousands) 2030	Change 2015–2030 (%)
1	Niger	Zinder	370	887	140
2	Burundi*	Bujumbura	751	1,735	131
3	Nigeria*	Lokoja	473	1,027	117
4	Niger	Niamey	1,090	2,363	117
5	Tanzania	Mwanza	838	1,793	114
6	Burkina Faso	Ouagadougou	2,741	5,854	114
7	Mali*	Bamako	2,515	5,231	108
8	Tanzania	Mbeya	444	914	106
9	Nigeria*	Nnewi	770	1,577	105
10	Uganda	Kampala	1,936	3,939	104
11	Angola	Lubango	371	751	103
12	Nigeria*	Uyo	848	1,709	102
13	Nigeria*	Abuja	2,440	4,913	101
14	Ethiopia	Mekele	315	633	101
15	Nigeria*	Umuahia	580	1,167	101
16	Tanzania	Zanzibar	569	1,145	101
17	Nigeria*	Ikorodu	706	1,414	100
18	Zambia	Lusaka	2,179	4,365	100
19	Madagascar*	Toamasina	327	654	100
20	Angola	Huambo	1,269	2,537	100

*Source: UN DESA (2014). Agglomerations over 300,000 and 10 million in 2014 considered. Countries with * are considered fragile states by either the World Bank's Harmonised List of Fragile Situations FY14 and/or the Fund for Peace's Fragile States Index 2014 (Fund for Peace, 2014)*

Table 8: A summary of our four selected slum-upgrading programmes

	Rio – *Favela Bairro*	Medellín – PRIMED/PUI	Thailand – *Baan Mankong*	Mumbai – Community toilets
Scale of housing deprivations	1 million people lived in slums about 16% of the city population (1990s)	250,000 people about 14% of the city population (1993)	Between approx. 3 and 6 million people (nationally) lived in slums, 14–26% of urban population (2005)	6.25 million or 54% of the population lived in slums (2001)
Timeframe	Phase I – 1994–1999; Phase II – 2000–2007	Phase I – 1993–2000; Phase II – 2000–2004 PUIs – 2002 onwards	2003–ongoing	1995–ongoing
Scale of Intervention	City level	City level	National level	City level, multiple cities
Main actor driving intervention	Local government (collaborating closely with communities and in coordination with national government)	Local government (collaborating closely with communities and in coordination with national government)	National government with central role for communities and in collaboration with local government and experts.	Driven by communities in collaboration with local government
No. of Beneficiaries	Phase I and Phase II – a total of 137,000 households	Phase I – 11,000 households (51,000 people) Phase II – approx. 13,000 households (60,000 people)	96,882 households	866,000 people in Mumbai, and 156,000 in other cities
% of slum population targeted (Estimates)	Over 25% of the city's estimated slum settlements	Over 30% of the city's estimated slum settlements	Approx. 6-15% of slum households	Approx. 14% slum dwellers
Cost	Phase I – $380 million Phase II – $380 million Phase III – $300 million (co-funded by IDB)	Phase I – $15 million Phase II – $20 million approx. (42,569 million Colombian pesos) (co-funded by GTZ)	By 2013, $ 191 million (6,515 million Baht)	Phase 1 – $ 8.7 million (Rs 400 million) for 400 toilet blocks (over 10,000 seats) during 1999-2001
Estimated cost per household	(Phase I) Planned investment of average spend of $2,500 per household. Maximum limit of $4,000 per household (maintained in subsequent phases)	Average cost per family was approximately $1,400 (Phase I)	Average support for housing improvements is $2,064 per household, but these are mostly funded through loans. Thailand grants only $750 per family in subsidies for the implementation of collective infrastructure (water and sewage, street lighting, public spaces or whatever communities deem necessary)	Approx. $ 17 per person served (assuming each toilet seat was used by 50 persons each day) (Burra et al., 2003)
Funding mix	Loans from the IDB and Rio municipality's resources	GTZ (now GIZ), national and local government contributions	Government resources (a mix of loans and grants)	World Bank and local government resources
Focus of interventions	Multi-sectoral (e.g. tenure, access to housing, utilities and basic infrastructure, mitigating geological risks, social development, promoting civic participation/ community development)	Multi-sectoral (e.g. tenure, access to housing, utilities and basic infrastructure, mitigating geological risks, promoting civic participation and community development)	Multi-sectoral (e.g. tenure, access to housing, utilities and basic infrastructure, promoting civic participation community development)	Sectoral (focus on community toilets but also on community development)

Sources: Jaitman and Brakarz (2013); Betancur (2007); CODI (n.d.); Bhatkal and Lucci (2015); Dias Simpson (2013), based on data provided by ACHR, Burra et al. (2003) and SPARC (2014); Thailand National Statistical Office (2006); Registrar General of India (2001)



Rio de Janeiro. Photo: © Daytours4u.

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