

Creating and capturing value around transport nodes

This case study is based on an existing booklet, *Creating and Capturing Value Around Transport Nodes* (SACN, 2010) published by the South African Cities Network (SACN), the Training for Township Renewal Initiative (TTRI) and National Treasury. The booklet draws on prior research on value capture around transport nodes that was commissioned by Urban LandMark and conducted by African Development Economic Consultants (ADEC). The content of the case study is not presented here. The existing booklet needs to be used in conjunction with this sheet.

Reflection and learning activities are provided on the back of this sheet. You can do these activities on your own or in groups, as appropriate for your learning session. Look at the activities before you begin so you know what to look out for during your reading of the booklet.

The booklet highlights the following:

At transport interchanges the demand for land, and therefore the value of land, is heightened and additional value is created.

Opportunities for capturing that value for the purposes of development in the area are thus maximised at transport interchanges and should be explored and understood.

The booklet uses cases from three transport interchanges, namely

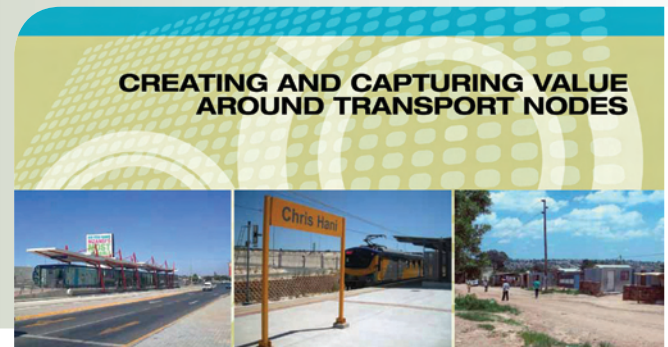
- Mooki Street Bus Rapid Transit station in Soweto (bus transport)
- PWV9 highway in Johannesburg (road transport)
- Chris Hani Railway Station in Khayelitsha (rail transport).

It also presents a valuable summary of international best practice in the use of value capture instruments.

Learning outcomes:

By the end of this session participants will be able to:

- Describe and explain the concept of value capture
- Describe a range of tools or approaches that can be used to capture value
- Suggest how South African local authorities might create and capture value around transport nodes.



South African
CitiesNetwork

TRAINING FOR TOWNSHIP RENEWAL INITIATIVE

national treasury
Department of Finance
Republic of South Africa

Background to this case study

Transport infrastructure can add significant value to land. It is most often funded from the public purse, yet very often it is local landowners, developers and investors who profit most from such investments. One could argue that a good share of this added value should rightfully be returned to the public. This case study asks how this could be achieved. It suggests that a first step is for authorities to take a more proactive role in understanding and directing development.

There are many opportunities for securing social, economic and environmental rights for society, and municipalities are in a position to negotiate these 'public goods' with developers. They therefore need to be more proactive in this role.

However, in order to adopt that proactive role and create a greater development vision around a transport infrastructure project, authorities need specific insights, tools and skills. Assisting authorities with gaining these insights, tools and skills is why the SACN booklet was published.

SACN booklet for use as case study material

Part of a series of case studies developed by Urban LandMark as a teaching and learning resource for studies in urban land markets. Urban LandMark gratefully acknowledges funding by UKaid from the Department for International Development (DFID). Email: info@urbanlandmark.org.za • www.urbanlandmark.org.za

Learning activities

Before you start

Before you read the case study, spend a couple of minutes making a note of your answers to this question:

'Capturing value' (for example, by imposing development taxes or by requiring low cost housing to be built as a condition of being granted development rights) is seen by some as simply a way for local authorities to cream off profits that should rightfully remain with those who take the initial risk – the developers. What are your views on this?

After reading the case study

Do the following activity on your own, or in groups. Write down your answers to the question. Be prepared to share your findings with the larger group.

Many local authorities are not proactive about master planning and development opportunities that benefit the general public. They are often unaware of ways of working in partnership, for example, with developers, to create and capture value around infrastructure development, and transport nodes in particular.

You are an adviser to such a local authority. Put forward a set of guidelines that would assist the local authority, not only to capture value from infrastructure projects, but also to create that value in the first place by the way that they plan such projects.

Reflection

- Has this case study influenced your attitudes or opinions about the role of local authorities? Share this with the other participants using this learning material.
- What are the key insights that you have gained from this case study?

To help you navigate the booklet

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CREATING AND CAPTURING VALUE AROUND TRANSPORT NODES



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¹African Development Economic Consultants with BKS Engineers (2010) Value capture from transit-oriented development and other transportation interchanges. Report prepared for Urban LandMark, Pretoria.

TRAINING FOR TOWNSHIP RENEWAL INITIATIVE

The Training for Township Renewal Initiative (TTRI) is a partnership between the National Treasury (Neighbourhood Development Programme), South African Cities Network (SACN), the Department of Cooperative Governance (Urban Renewal Programme), the Development Bank of Southern Africa (DBSA), and Urban LandMark. The partners are also supported by occasional associates. TTRI aims to promote, encourage and support township development and renewal in South Africa through the training of township managers and practitioners.

The TTRI booklets aim to document experiences that illustrate innovative approaches to area-based development in order to share practical ideas and lessons to inform future development initiatives and practices for South Africa's townships. These booklets are primarily for role-players involved in township regeneration, including planners, trainers, policy makers, investors, community leaders and municipal officials.

This booklet focuses on value capture from transport interchanges. At transport interchanges, the demand for land, and therefore the value of land, is heightened and additional value is created. Opportunities for capturing that value for the purposes of development in the area are thus often maximised at transport interchanges and should be explored and understood.

This booklet is illustrated with cases from three transport interchanges, namely Mooki Street Bus Rapid Transit station in Soweto (bus transport), the Pretoria-Witwatersrand-Vereeniging 9 highway near Diepsloot in Johannesburg (road transport), and the Chris Hani Railway Station in Khayelitsha (rail). It provides an opportunity to learn about how value at these sites was created by the transport interchanges, and what instruments have been proposed to capture that value for public good.

ACRONYMS

ADEC: African Development Economic Consultants

BART: Bay Area Rapid Transit

BRT: Bus Rapid Transit System

BID: Business Improvement District

CID: City Improvement District

CBD: Central Business District

CBO: Community-based organisation

IDP: Integrated Development Plan

PRASA: Passenger Rail Agency of South Africa

PWV: Pretoria-Witwatersrand-Vereeniging

SDF: Spatial Development Framework

TIF: Tax increment financing

TOD: Transit-oriented development

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TRAINING FOR TOWNSHIP RENEWAL INITIATIVE

1. INTRODUCTION

Infrastructure, and transport infrastructure in particular, can add significant value to land. Transport infrastructure is most often funded from the public purse, yet very often it is local landowners, project developers and property investors who profit most from such investments. One could argue that a good share of this added value, the direct result of public investment, should rightfully be returned to the public. Yet how should this be achieved? A first step is for authorities to take a more proactive role in understanding and directing development.

A call for municipalities to take a more proactive and creative role in development

At a recent colloquium on retail-led township development² a strong argument was made that municipalities can and ought to be more proactive in setting development agendas for their neighbourhoods. There

²Colloquium on Retail-led Township Development held at National Treasury, 11 August, 2010. The proceedings are available on <http://ndp.treasury.gov.za/TTRI> (click on Courses library)

are many opportunities for securing social, economic and environmental rights for society and municipalities are in a position to negotiate these "public goods" with developers. Within reason, therefore, certain deliverables can be negotiated.

This is no less true of transport infrastructure. Authorities are in a position to negotiate with developers around capturing value from such projects. They are also in a position to influence planning in ways that create value for public good and promote local development.

However, in order to adopt that proactive role and create a greater development vision around a transport infrastructure project, authorities need specific insights, tools and skills. We examine three points in this regard.

- A narrow focus on individual transport infrastructure projects loses sight of area or regional planning and the synergies and huge opportunities available in integrated, transport-oriented development. The next section provides

input on transit-oriented development as a preferred approach.

- An exciting method (Valuation Forecasting Model) for predicting how much value might be created by a particular project in relation to its local and even regional context is presented that provides municipalities with the tools to include value creation and value capture much more effectively at project planning stage.
- A set of economic instruments to capture value from infrastructure projects is provided and assessed for usefulness and applicability in the South African context. While these instruments to capture value are not necessarily new, they are not widely used in South Africa, and deserve greater attention.

Government is responsible for pursuing the broader, development agenda, not developers



An example of transit-oriented development where value was created

KEY POINTS

Municipalities must be proactive and creative in the way they direct and facilitate development. In considering the potential of value capture around transport nodes, municipalities should consider the following:

1. Infrastructure is an important but insufficient condition for creating value. Value will more likely be created if other conditions also exist, for example, availability of land, clear ownership patterns and appropriate development rights.

2. Trade-offs between value created and value captured need to be made. Developers also have a reasonable expectation to make profits.

3. Expectations of value created need to take account of changes in the local context and over time. An expectation, for example, of 30 per cent inclusionary housing at inception might have to be amended to a lower figure later if the economy or other circumstances change.

2. TRANSIT-ORIENTED DEVELOPMENT

There is more to value capture than merely capturing value. It is also about effective ways of creating value, for example creating successful and sustainable neighbourhoods in relation to transport interchanges.

This broader planning approach, sometimes referred to as transit-oriented development (TOD), is not about single projects, but about reducing urban sprawl and improving the relationship between jobs and housing. It is about creating sustainable, integrated, compact, mixed-use neighbourhoods around high-quality transport systems.

Transport connects us, and we can use TOD as a tool for good urban development. Such efforts reduce environmental impacts and establish more sustainable development patterns. They also make public transport more viable, thereby improving the quality of life as well as disposable incomes for people throughout all economic strata.

TOD is a straightforward concept: concentrate moderate and high-density housing along with public uses, jobs, retail and services in mixed-use developments located at strategic points along the regional transit system. Each TOD has a centrally located transit stop and core commercial area and accompanying residential and/or employment uses within an average 600 to 800 metre walking distance. The location, design, configuration, and mix of uses in a TOD provides an alternative to current suburban sprawl and vehicle-dominated



BRT station in Soweto showing the potential for local economic development.

trends by emphasising a pedestrian-oriented environment and reinforcing the use of public transportation. In South Africa, transport interchanges such as the Gautrain, the Bus Rapid Transport system (BRT) linked with the mini-bus taxi system provide perfect opportunities to adopt a TOD approach.

This linkage between land use and transit is designed to result in an efficient pattern of development that supports the transit system and makes significant progress in reducing sprawl, traffic congestion, and air pollution. The TOD's mixed-use clustering of land uses within a pedestrian-friendly area connected to transit provides for growth with a minimum of environmental and social costs.

The following case study from the San Francisco Bay area in the United States illustrates well how a single function transport infrastructure project that could have become a barrier in a neighbourhood and potentially weakened it was turned around and became something that integrated and boosted the community.

PHOTO: ADEC

Box 1: The case of Fruitvale Transit Village³

Oakland, California (part of the San Francisco Bay area) participated in the development of Fruitvale Transit Village, an example of a joint development project. The project was spearheaded by the Unity Council, a non-profit organisation which formed the Fruitvale Development Corporation together with the City of Oakland, Bay Area Rapid Transit (BART), Alameda County Transit, the Metropolitan Transportation Commission and various community-based groups.

The primary objective of the project was to assist in the revitalisation of the East Oakland inner city which, like the Johannesburg city centre, suffered from disinvestment in the 1960s when factories and canneries that employed a large number of local residents relocated out of the area. As a result of such disinvestment, the commercial node along East 14th street declined over the subsequent years. In 1989,

BART announced its intentions to build a 500-car parking garage at its Fruitvale Station, which the transit agency perceived as a commuter node. However, this plan was met with opposition from residents of the East Oakland community. The largely low-income, Hispanic community felt that the parking garage would serve as a barrier and would spiral the community into further decline.

The executive director of the non-profit Hispanic Unity Council put forward the concept of a transit village which would link the local economy of East Oakland to the mass transit station. Her recommendations were largely based on a study completed by the University of California at Berkeley (which is located near Oakland). The community was heavily involved in the subsequent conceptualisation of a plan for the Fruitvale Station area.

continued on page 8 >



PHOTO: ANDY KAUFMAN

Mixed-use area of Fruitvale Village.

"Transportation planning should be about more than concrete and steel. It should be about building communities and we are all looking to Fruitvale as an example of how that can happen."
(Rodney Slater, U.S. Secretary of Transportation.)

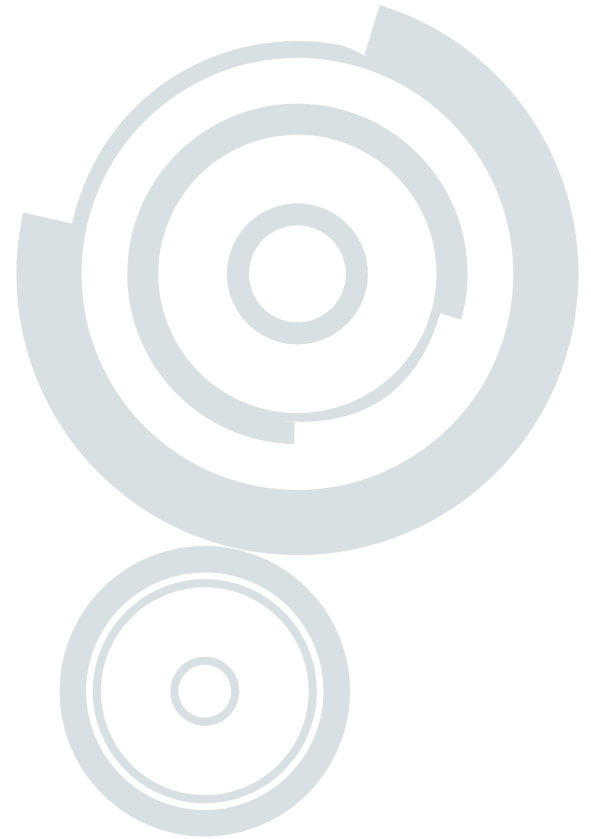
Formation of a partnership between the Unity Council and BART was critical, as BART owned most of the land surrounding the station. The two organisations worked closely together for mutual benefit by engaging in land swaps. Marketable properties that belonged to BART on the east side of the station were swapped with less-marketable properties on the west side, which belonged to Unity Council.

Planning for development of the Fruitvale Transit Village began in 1992, but the site was only acquired from BART in 2001. Construction of Phase 1 of the Fruitvale Transit Village began in January 2002 and was completed in February 2004. The total development covers an area of 1.62 hectares of mixed-use development located next to the Fruitvale BART Station. The commercial office component covers over 10 000m² with five tenants occupying an average of 1 600m² each. The retail component covers 3 680m² with a wide complement of stores ranging from personal services to food outlets that serve the local

community as well as commuters. Residential development covers 4 800m² and comprises 37 market-rate housing lofts and 10 affordable housing units. Community-based facilities comprise of a child development centre, a public library, and a health care clinic.

The Unity Council has a vested stake in the project as it owns land on which a pedestrian plaza and commercial (South) building were eventually built. Furthermore, the Unity Council entered into a 95-year lease for the land on which the residential (North) buildings sit. Thus, the non-profit Unity Council generates direct revenue from its participation in the project, which helps to fund activities to assist the organisation's low-income constituency.

³More information about this project can be found at <http://www.fhwa.dot.gov/environment/ejustice/case/case6.htm>



The case of Fruitvale Transit Village illustrates how value can be added in at least two important ways if planning is done carefully:

1. Social value has been added to a community of people by upgrading their area, creating a central place within the community and enhancing urban services.
2. Land value has been created because of the publicly funded infrastructure development that was done with people's needs in mind and that was sensitive to the local context.

In short, what could have been merely a large parking garage that could have resulted in a sterile and uninteresting section of Fruitvale, through TOD thinking instead became a compact, multi-use, central place with enhanced land and community value.

The remainder of this booklet focuses on a way of calculating, with a fair degree of accuracy, the quantum of value that can be added by investment in transport interchanges, allowing authorities to negotiate with role-players ahead of time around capturing some of that value for public good.



PHOTO: ERIC FREDERICKS

The BART terminus area at Fruitvale Transit Village.

3. UNDERSTANDING VALUE CAPTURE

Value Capture (or more accurately Land Value Capture) as referred to in this study is an approach to recycling public funding invested in infrastructure developments for the public good. Value Capture is increasingly being used worldwide and is attracting interest in South Africa as a way of promoting social or public benefits



PHOTO: ADEC

Transit-oriented development has the potential to transform neighbourhoods.

from infrastructure development. The notion of value capture is not new and there are existing instruments aiming to do exactly this. However, in South Africa our municipalities have not adequately explored the opportunities that exist for creating and capturing value in relation to their transport nodes. These opportunities offer a promising approach for funding transportation development, including associated projects such as low-cost housing, parks and other amenities, as is common in TODs.

WHAT IS ADDED VALUE?

Any large-scale infrastructure development is likely to positively influence land values in its vicinity, although the opposite can happen depending on the specific land use. Where a development is still at proposal stage there is the expectation that land values around that development will

increase. This presents the opportunity to attempt to capture some of that added value for public good. But to be effective, this needs to be done ahead of time to be negotiated and agreed among the role-players.

Governments across the world are increasingly taking steps to capture some of the added value emanating from new transport interchanges and to use that for the public good (for example, funding the infrastructure from the captured revenue, or negotiating with developers to provide public infrastructure as part of the development) or for targeted social benefits (for example, requiring that developers include in a housing project a certain number of low-cost units).

The Valuation Forecasting Model is predictive; it allows land economists and planners to establish ahead of time and with reasonable accuracy what the added value might be. They can then take pro-active steps to capture that value.

METHODS FOR ASSESSING ADDED VALUE

There are two main methods used to assess what value might be added to a particular site as a result of a development close to that site.

The **conventional method** is based on a regression analysis using data such as property prices before and after the development. This is a retrospective analytical tool in that it relies on “post-project” data.

This project presented an opportunity to explore and refine another method, the **Valuation Forecasting Model**, less commonly used, but more predictive and arguably, more useful. Although most of the steps outlined in the box on the right look familiar to those involved in land valuation and planning, the exciting contribution this method represents is that it is predictive and allows one to take steps to maximise possible value creation. This can be done with a fairly clear idea of local sensitivities and potentials.

Because residual valuation techniques rely on a number of assumptions and inputs, it is important to “cross-check” the value derived by comparing it with the values of comparable sites and the residual value if the site had been developed without the interchange.



Valuation Forecasting Model

The method is based on the following steps:

1. Identify a piece of ground or area that will be affected by a development (in this case a transport interchange).
2. Obtain existing land values.
3. Conduct a site and market analysis to determine market potential.
4. Apply a feasibility analysis. What could this site support, given its existing characteristics and its market potential? This could be housing, commercial development, office space, an industrial park or a combination of land-uses.
5. Calculate the residual land value⁴ based on the new market potential.
6. Calculate the value differential. For example, the feasibility analysis might lead to a conclusion that the site will support 200 new houses (see box on page 12 for calculations), which could be sold for a certain amount. This new land value per square metre less the original land value per square

⁴Residual value is the amount a developer can pay for the land and still make a reasonable profit on a development – calculated as the price received for a development less the cost to build the development less developer’s profit = residual land value.

Calculating the "Value Add"

Assume:

- 200 houses can be built at R500 000 each and each can be sold at R650 000
- Total land needed to build 200 houses is 10 hectares (100 000m²)
- Developer must make 20 per cent profit (let us assume this figure in this case)

Selling price	R650 000
Less building cost	R500 000
Less profit	R100 000
Amount left to pay for the land per site	R50 000

$$R50\ 000 \times 200 = R10\ 000\ 000 \div 100\ 000\text{m}^2 = R100/\text{m}^2$$

$$\text{Value} = R100/\text{m}^2$$

Assume land (before transport infrastructure built) is being sold at R40/m².
Therefore, value created as a result of the transport infrastructure is:

Value of land with infrastructure	R100/m ²
Value of land without infrastructure	R40/m ²
Value Add	R60/m ²

WHY IS THIS USEFUL FOR GOVERNMENT AUTHORITIES?

We have seen that transport infrastructure can be much more than just a facility - if planned using a transit-oriented approach it can add value in several important ways, including direct financial value. The aim of this booklet is to assist government authorities to use this insight in a practical way to plan developmentally and proactively and to use the methods outlined here to negotiate ahead of time with developers so that value of a known quantum can be captured and used for public good.

INSTRUMENTS FOR CAPTURING VALUE

The final step is to make decisions about how to allocate that added value and identify instruments to capture it for social or public good. How much of it should legitimately go to the developer?

How much can be captured, and for what purpose? What economic or legal instruments should be devised to facilitate the capturing of that value? Section 5, "Best Practice" provides an overview of value capture instruments that have been used worldwide.



The next section provides a synopsis of analyses that were conducted on three transport interchanges in South Africa and recommendations that emerged in the light of the added value calculations.

4. MEASURING VALUE IN THREE SOUTH AFRICAN CASES

In the work used for this booklet⁵ several typologies and cases were selected based on the need to examine diverse infrastructure modalities and locations. Only those sites where an interchange is actually planned (and potentially budgeted) but not yet built were selected for study. Sites located near or in a low-income area were also prioritised. Despite the plethora of transport projects planned or underway nationwide, relatively few interchanges met all of these requirements. Ultimately, the selection was:

1. A highway interchange along the planned Pretoria-Witwatersrand-Vereeniging (PWV9) near Diepsloot in Midrand
2. A bus-rapid transit (BRT) station site near Mooki and Magoye streets in Soweto
3. A Metrorail (PRASA) commuter station site in Chris Hani, Khayelitsha.

⁵ African Development Economic Consultants (2010) Value capture from transit-oriented development and other transportation interchanges. Report prepared for Urban LandMark, Pretoria.

⁶ Residual values are those values that remain or "reside" once all costs, fees, profits, expenses etc. have been covered.

PHOTO: AD/EC



An aspect of the Diepsloot site survey – economic activity in the area.





Housing needs analysis in Diepsloot

A fallacy of development is that development depends on existing market conditions, when, in fact, markets can be “created” or leveraged through public investments (such as infrastructure) that help to create future asset value. Thus, it was critical in this work to understand the future potential for various types of development near these sites if and when new transport interchanges were developed and

other conditions were met. Mixed-use development also helps generate demand for transportation, since people are living and/or working near stations and interchanges. As such, TOD is key to creating markets for public transportation, which in turn generate revenues to transit agencies and help cross-subsidise service for the poor (thereby increasing disposable incomes).

In each site a decision was made about what development mix, for example, housing, retail, office, or industrial would be most appropriate for that site based on the various analyses (“what could this site support?”). Finally, financial calculations were made to determine the residual values.⁶

The residuals were then expressed as a value per square metre and compared against three measures:

1. The existing land value at the proposed interchange site before any development, in order to identify the “leap” in value associated with development.
2. A forecast of market potentials at each site without and then with the proposed interchange, in other words, the market potentials for each site were determined under two scenarios – one with and one without an interchange.
3. Values at comparable non-interchange sites.

PHOTO: ADEC

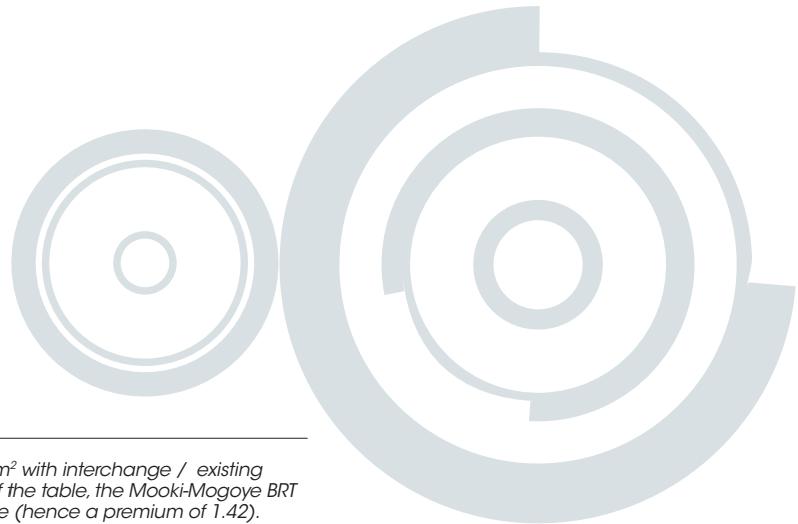
Any one of these three measures could have been used, but all three were used to obtain a more reliable result. The “differential” between the residual value and the three alternative measures helped to isolate and express the value (or “premium”) associated with the interchange at each site.

All of the above enabled the researchers, predictively, to be able to determine premiums⁷ by which the land values could increase, dependent, of course, on a range of variables and assumptions, and so these figures should be taken as indicators rather than predictors (See Table 1).

While it is tempting to compare across sites and modalities to show that highways and rail have a higher impact on value than BRT, such conclusions are spurious without a larger and more diverse sample for testing. Further research is required to determine the role of any given transport mode or location in comparison to another.

Table 1: Premium in land value associated with a transport interchange

Site	Comparison with existing value	Comparison of market potentials - interchange / no interchange	Comparison of these sites with non-interchange sites
Mooki-Magoye	1.42	1.26	1.22
Chris Hani	1.97	2.19	1.76
Diepsloot / PWV9	18.3	2.8	1.96



⁷ The premiums are calculated as a ratio of projected land value per m² with interchange / existing land value per m² without interchange. So, for example, in column 1 of the table, the Mooki-Magoye BRT station is projected to bring about a 42 per cent increase in land value (hence a premium of 1.42).

5. SUMMARY OF INTERNATIONAL BEST PRACTICE IN VALUE CAPTURE INSTRUMENTS

What instruments exist for project managers, planners, municipal officials and others to capture value effectively? The various mechanisms from across the world that are described here have been used to capture value from mass transit and other transport interchanges. Not all are appropriate for use in South Africa, while others are already fairly commonly used. They are included here to stimulate new (or old) ways of thinking and to generate ideas around how value created through public infrastructure spending might be captured for public good.

This section is a highly summarised presentation - authorities wishing to employ such instruments need to explore them further in much greater detail.

BETTERMENT TAX OR SPECIAL ASSESSMENT

Betterment taxes are imposed by local governments to capture the increase in land value where public fund investment

in infrastructure has allowed private development to benefit. In this way private owners and occupants contribute towards a public service. Betterment taxes are most effective in robust markets where there is a well-established tax administration system.

BUSINESS IMPROVEMENT DISTRICTS

A Business or City Improvement District (BID or CID) is a levy on property owners and/or businesses located within a specific area for services in addition to those normally provided within the city. These funds are often used to combat "crime and grime" issues through added security and cleansing staff, as well as for infrastructure improvements, signage, landscaping, surveillance cameras, marketing, management, and other services that benefit the property owners, businesses, and residents of the designated area.

DEVELOPMENT IMPACT FEES OR DIRECT CONTRIBUTIONS

Impact fees or developer contributions are once-off fees levied by local governments on developers to help recover the cost of public infrastructure required for the

developments, for example, bulk water systems, road works, and other public infrastructure. Developers can also be required to supply infrastructure beyond their own development site if their development causes impacts on regional infrastructure systems.

ZONING TOOLS

Zoning can be used as a powerful tool for creating value, by directing the location, type, and scale of development. Two types of zoning tools include incentive zoning (rewards for developers in exchange for including certain public amenities or meeting other public objectives), and inclusionary zoning (requiring housing developers to include a certain percentage of affordable units in their projects to create mixed-income communities).

JOINT DEVELOPMENT AGREEMENTS

Joint development refers to a type of public-private partnership where public and private entities contribute to the costs of infrastructure and share in potential revenues generated by it. Joint development projects are often location-specific and have

a high degree of community involvement and complexity (see the case of Fruitvale Transit Village on page 7).

LAND VALUE INCREMENT TAXES

Land value increment tax can be applied to normal property tax by ring-fencing the revenue raised on the increase in value of land brought about by public interventions (such as the provision of transport infrastructure and other services).

LAND BANKING AND LEASEHOLDS

Land banks are used by local governments for a variety of public purposes. Most relevant is where local government acquires land located near or within TOD hubs. An increase in the value of land can then be captured by the public sector through income from leasing and sale. Leasing, as opposed to outright sale of land, gives the public authorities more autonomy and flexibility in directing development to public purpose over the long term. A disadvantage is the possibility that revenue can be redirected to general fund purposes unless policy is written to control use of funds.



PHOTO: WWW.ICEHOCKEY.WIKIA.COM

Madison Square Garden built over the Pennsylvania Railway Station.

AIR RIGHTS

Air rights allow for development above public infrastructure and facilities such as railway or mass transit stations, highways, and other facilities. They often come with requirements for the provision of public amenities, infrastructure, affordable housing, and other public benefits, for example Manhattan's Madison Square Garden arena, which was built above Pennsylvania Station, and the N1 Plaza, built above the N1 Highway in Midrand.

TAX INCREMENT FINANCING (TIF)

Public infrastructure impacts on the value of property, thus increasing public tax revenues. The resultant increase in tax revenue can then be captured to repay municipal infrastructure financing within that precinct. TIF is usually targeted to encourage investment in under-developed or downgraded areas that otherwise generate little or no tax revenue to local government.



6. CAPTURING VALUE IN THE THREE CASES

The research consulted for this booklet included an examination of value capture worldwide (see Section 5). This has been used to make recommendations of tested as well as some new or less-tested methods for capturing value in the three sites that are applicable in South Africa. Section 4, and Table 1 in particular, presents the quantum of values added to each site as a result of the proposed transport interchange. The important questions, central to this entire piece of research, are thus:

- **How best do we capture that value?**
and
- **Now what do we want to do with it?**

6.1 MOOKI-MOGOYE BRT STATION

Orlando East has a sizeable low- and moderate-income population living primarily in single-family detached housing and in an informal settlement not far from the site. The high level of commuting has resulted in reduced available incomes and personal time. Nevertheless, the market analysis suggests potential for redevelopment of the immediate Mooki-Magoye area for a mix of 810 residential units plus 7 000m² of retail, by 2020. It was found that the introduction of BRT infrastructure at this site would help to increase the value of land in the area surrounding the site by at least 22 to 26 per cent over what it otherwise would have been in the absence of such infrastructure.

Objectives

Objectives for this site would be to capture the potential for market-rate residential and retail development in a way that also helps to diversify the income mix and cross-subsidize the delivery of affordable housing units. There is a need to diversify the housing mix in order to help create more sources of disposable income in support of local economic activities.

Recommended mechanisms

The following mechanisms are recommended as approaches for capturing the interchange-related premium on value.

Inclusionary housing provision: There is likely to be a demand for market-rate housing units within the area surrounding this site. This provides the opportunity to implement an inclusionary housing provision of a certain percentage of affordable units within housing projects. Inclusionary housing policies are most effective where there is an explicit link to the value gained through a public improvement (such as a transport interchange). The marginal increase in value due to BRT (the “premium”) is relatively shallow at Mooki-Magoye (at 22-26 per cent), so it may be difficult to attract developers who would reduce their profitability in order to gain a foothold in this market, so this provision might not be as effective at this location as it would be in a higher value location.

Infrastructure such as the BRT is a form of incentive for development. As such, it



PHOTO: ADEC

This area immediately surrounding a Metrorail station in Soweto can be significantly boosted by a well-planned transport interchange.

would be unwise to demand of developers too high a percentage of inclusionary housing after providing an incentive for them to invest. The best strategies rely on a combination of “carrots and sticks” to attract private investment while ensuring that such development meets the community’s standards and needs for housing and economic development.

Joint development agreement: A joint development agreement or similar where community equity stakeholders could share directly in the planning and financial benefits would also be appropriate for this site. In this case, a community-based organisation (CBO) might be formed based on the equity participation of homeowners and residents within the development area, in partnership with PRASA and the City of Johannesburg.

6.2 DIEPSLOOT / PWV 9 HIGHWAY INTERCHANGE

The PWV9 Highway interchange presents excellent opportunities for capturing added value, even though the site is not directly located within a low-income area. Creating high-value development and attracting economic drivers, regardless of location, is critical for securing funding for potential value capture.

Objectives

At this interchange, there is the opportunity to capture a significant premium in value to the benefit of low- and moderate-income households in nearby Diepsloot. Ultimately the objective should be to maximise employment creation at this interchange and for Diepsloot residents to benefit from these opportunities. Another objective is to ensure that affordable housing is created nearby to reduce the burden of travel.

Recommended mechanisms

Development impact fees (bulk service contributions): South African municipalities already extract bulk service contributions from private developers in order to help pay for bulk services. In this case these

contributions should be ring-fenced to create a social investment fund in proportion to the premium on land value.

Land value increment taxes: A land value increment tax (ring-fenced) could be ear-marked for special projects or programmes within Diepsloot or for job training and transport associated with businesses that locate within the interchange area (thus providing both a direct benefit to the businesses as well as to the Diepsloot residents).

Special district regulatory employment

conditions: A special local economic development district could be created. Development applications within this district would need to include employment, training, or social service opportunities. The municipal government provides the incentives of (1) access to the interchange and (2) tax abatements or other fiscal incentives to attract corporate investment. In return, government can require employment creation and local participation in contracting, etc.

Land banking and leaseholds: Local or provincial government can purchase land surrounding the planned interchange and hold it for sale upon development. The public agency then benefits from the increased land value, which is captured and ring-fenced for local development projects (e.g. housing, infrastructure services, etc) in Diepsloot. An important consideration, however, is that government agencies are notorious for re-allocating funds to other purposes rather than to the original purpose of poverty alleviation. Ideally, an oversight agency should be designated to ensure that the funds are distributed as intended.

Tax increment financing district:

Because of the development potential at this site, there is the opportunity to establish a TIF district to help finance infrastructure. The TIF would help create bonding capacity to support infrastructure development without direct cost to government, thus freeing up resources to use for poverty alleviation and other projects.

6.3 CHRIS HANI RAILWAY STATION

The Chris Hani Station presents the opportunity to create a comprehensive, master-planned TOD that establishes the density to support local economic activities. The station is located at the end of the line and thus can accommodate ridership from commuters who travel from further afield by taxi, bus or other transport. The focus of commuters at this location provides more “inflow” opportunities to capture a broader commercial and residential market.

Objectives

As in Orlando East, there is a need in this area to provide diverse housing choices, including market-rate housing and also a large number of affordable rental housing to accommodate families that are otherwise living in shacks. There is also a need to encourage commerce and business development at this site, while not undermining the opportunities presented at Khayelitsha CBD. Finally, there is the need to maximise ridership for Metrorail to help support their operations and reduce the opportunity cost of transport to local residents.

Recommended mechanisms

The effectiveness of the proposed mechanisms here is greater than in Mooki-Magoye due to the opportunity for larger-scale, higher-density TOD associated with the Metrorail station.

Inclusionary housing: Here again, there is the opportunity to establish an inclusionary housing policy that requires developers to include a percentage of affordable units. While the Mooki-Magoye site provides only a marginal opportunity for this type of regulatory tool, the Chris Hani site provides a more feasible scale of development. There is also the opportunity for such policies to encourage inclusion of mixed-use, such as retail where rentals can help cross-subsidise housing management costs.

Joint development agreement: A joint development agreement at this location could be used to create asset ownership and income for a CBO, which could be used to finance a community management and maintenance company or other entities that provide job training and hands-on experience for community residents.

Business / City Improvement District.

A BID or CID operation could become useful at this type of location in collecting the revenues necessary to support maintenance, management and security of the residential and commercial areas associated with mixed-use development around the station precinct. A CID would also help generate employment opportunities for residents to help perform these functions. Enhancing and maintaining the public environment around the station and mixed-use area would help to maximise transit ridership.



7. CONCLUSION

SUMMARY

This booklet has demonstrated that transport interchange developments can add significant value to land around their sites. It argues for a TOD approach rather than a narrow “single project” approach. Not only does TOD bring about significant improvements to the urban environment, for example, more efficient transit systems, and potentially stronger local communities, but it promotes local economic development, thereby increasing the opportunities for creating value and therefore the scale of value that can potentially be captured.

The booklet then profiles a method of calculating the quantum of created value. The method is exciting precisely because it is predictive and empirically based, thereby providing reliable indicators and a strong basis for negotiating amounts that are available for value capture.

Finally the booklet profiles a number of instruments by which value can be captured. These instruments are used widely internationally, but less so (or less

effectively) in South Africa for various reasons that may require further analysis.

Many of the policies and actions recommended in this case study relate to the ring-fencing of tax revenues generated by infrastructure investment within a particular location or district. In almost all cases, such tax revenues are generated to local government, which has the most direct control over zoning, land use, development regulation and local economic development. For example, TIF and Land Value Increment Taxes are direct value-capture mechanisms utilised by local governments to capture the increase in local property tax revenues. Various incentive mechanisms are also utilised by local governments to encourage the types of development for which each individual local economy is most competitive.

In South Africa, even where national government has enabled incentives, there appear to be barriers to effective value capture. There also appears to be little opportunity for local municipalities to establish their own unique incentives or special taxing districts under current policies.

There are limited examples of (and perhaps opportunities for) local governments to experiment and to leverage their tax base so as to encourage the market and types of development for which a municipality is particularly competitive.

However, municipalities certainly have control over regulatory mechanisms like zoning. There are opportunities for municipal governments to implement policies such as inclusionary zoning, which requires private developers to include affordable housing within their developments in order to create mixed-income housing communities.

In addition to the suggestion that local governments may need to experiment more with their tax and other fiscal incentives, there is also a need for local governments to recognise the power of public infrastructure itself as an incentive to development and to capture that value through existing regulatory processes (such as through zoning policies) and fee mechanisms (targeted bulk service contributions).

SELECTED RECOMMENDATIONS

Several recommendations can be made from this work. These apply to the general concept of value capture and incentive development around transport interchanges, and may be applicable to other types of locations.

1. Communicate to the relevant stakeholders (local governments, National Treasury, transport agencies, etc.) about the value that can be created by transport interchanges as a basis for value creation and capture for pro-poor local development.
2. Encourage local governments to include mass transit stations and major highway interchanges in their master planning, and incorporate the principles of TOD.
3. As a key public transport strategy, create integrated public transport networks and align different modes to increase impact on TOD – feeders and distributors for the bulk services.
4. Encourage transport agencies to participate as full partners in the master planning processes (rather than establishing processes independent from the municipal governments)



PHOTO: ADEC

The Chris Hani Metrorail station.

- and to extend the “site” to include surrounding potential development and impact areas.
5. Encourage local governments to explore incentives and regulatory requirements involved in creating and capturing value for local development at appropriate transport interchanges, including those incentives that build on existing tax and regulatory options within municipal legal jurisdiction.
6. Encourage National Treasury and government in general to examine opportunities to expand the options and guidance available to local governments to experiment with fiscal (tax) and

financial (direct investment, loans, or financing) incentives for economic development. A key for TOD is to provide clear policy objectives, removing any contradictory policy objectives and to ensure cross-subsidisation is targeted to prevent the perpetuation of apartheid spatial development with district-based taxes.

7. Encourage local governments and transport agencies to examine broader, regional and long-term TOD and value capture opportunities as a basis for prioritising sites for future master planning and development.

FINAL THOUGHTS

This booklet has explored ways of calculating and capturing value generated by transport interchanges. The study has confirmed that transport interchanges serve as a form of incentive which leverages development, spurring the private market and adding value that might not otherwise exist at a particular location.

However, caution around capturing value is advised because it implies a trade-off between public benefit and income that would otherwise accrue to the private investor. For this reason the private sector should be engaged as a full stakeholder in the process. The benefits of doing this are enhanced by the fact that the quantum of value creation can be predicted with a fair degree of confidence based on empirical work and can be used as the basis for planning and negotiations ahead of implementation.

In general, there is a need for strong leadership to encourage further exploration of ways of creating and capturing value for public good as well as education on and use of these mechanisms in order to ensure their appropriate application.

