









This Knowledge Product is intended to be used as a reference sheet available online on the GPSC's TOD website and the World Bank's TOD CoP website. The reader should first review the summary presented below before using the reference sheet.

Type: Reference Document











© 2021 The World Bank



















Disclaimer: The Transit-Orientated Development Implementation Resources & Tools knowledge product is designed to provide a high-level framework for the implementation of TOD and offer direction to cities in addressing barriers at all stages. As the context in low and middle-income cities varies, the application of the knowledge product must be adapted to local needs and priorities, and customized on a case-by-case basis. © 2021 International Bank for Reconstruction and Development / The World Bank

# INTRODUCTION

TOD often requires significant investments in infrastructure and community facilities for the type of development envisioned in TOD planning principles such as streetscape improvements, plazas and open spaces, utility capacity enhancements, land acquisition costs, and other supporting investments. In addition to initial capital improvement costs, operation and maintenance costs are also an added burden on the high-quality urban spaces that are promoted as part of TODs.

With limited financial capacities, unclear land entitlements, and low property tax collection revenues, local governments in low and middle-income countries continue to struggle to raise finances to support the types of investments that TODs aim to achieve.

#### **PURPOSE**

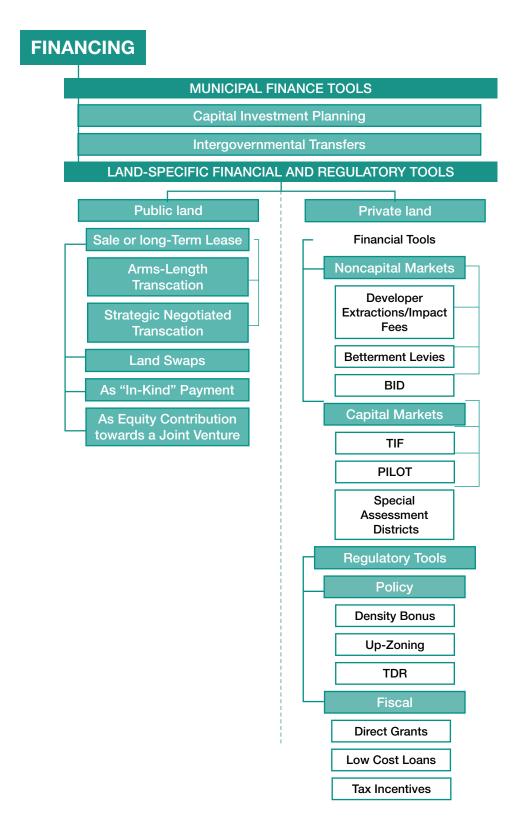
While the fundamental principles of municipal financing tools are similar globally, how cities deploy these tools depends on the local context including the regulatory processes, legal context and political will. This tool presents a comprehensive listing of financing instruments employed in many countries to fund public infrastructure and services.

#### ASSUMPTIONS AND LIMITATIONS

- The list of financing tools is generic in nature and will need to be contextualized as per each city's legal and regulatory policies.
- Several tools may require an enabling legislative framework or may be more market driven. Such an assessment should be conducted as part of due diligence while analyzing the applicability.



#### **ORGANIZATION OF TOOLS**







### **LAND VALUE CAPTURE (LVC)**

LVC tools are generally used to finance infrastructure improvements by setting aside a pre-determined share of the increase in values or savings resulting from public investment in infrastructure improvements

Cities using this tool: New Delhi (India), Tokyo (Japan) and Hong Kong SAR, China



# **TAX INCREMENT FINANCING (TIF)**

TIF is a method to use future gains in taxes to finance current improvements (which theoretically will create the conditions for those future gains). When a development or public project is carried out, there is often an increase in the value of surrounding real estate, and perhaps new investment. This increased site value and investment sometimes generates increased tax revenues. The increased tax revenues are the tax increment. Tax Increment Financing dedicates tax increments within a certain defined district to finance debt issued to pay for the project. TIF is designed to channel funding towards improvements in distressed or underdeveloped areas, where development might not otherwise occur. TIF creates funding for public projects that may otherwise be unaffordable to localities, by borrowing against future property tax revenues.

Cities using this tool: Arlington, Chicago (USA)



#### LAND READJUSTMENT

Land readjustment is an effective tool in allowing local governments to take on TOD projects, especially in greenfield contexts, in partnership with original residents and landowners as. Public amenities and infrastructure is then provided, using government funds or loans, and then the serviced plots are sold at market rates. The increment in the land value goes to the development agency instead of the original land owners, which can again be used to finance infrastructure upgrades. In return, each land owner receives a serviced plot of smaller area, but often at much higher value within the same neighborhood.

Cities using this tool: Mumbai and Gandhinagar (India)



#### **DEVELOPER FEES AND EXACTIONS**

This financing tool is often collected in the form of impact fees, as a one-time fee, and used as part of the city's general fund to finance public infrastructure improvements, such as utilities and transportation. Developer exactions are also used for dedication of land for public benefit, construction of public improvements such as sidewalks, parks or recreation center in a TOD area, sometimes in exchange for higher densities.

Cities using this tool: Bengaluru (India)





### **JOINT DEVELOPMENT**

One of the oldest financing mechanisms used for financing development by transit agencies, this tool is a form of public-private partnership involving real estate development on public owned land with private investment.

Cities using this tool: Seoul (Republic of Korea), Bengaluru (India)



### **MUNICIPAL BONDS**

These are debt obligations issued by municipalities to fund urban infrastructure projects and various municipal services. Purchasing municipal bonds means lending money to the government body, which in return pays specified interest throughout the locking period and returns the principal amount at the end of tenure. Municipal bonds are available in both taxable and tax exempt formats. There are two types of bonds: General Obligation Bonds (GO) and Revenue Bonds. GO bonds, issued to raise immediate capital to cover expenses, are supported by the taxing power of the issuer. Revenue bonds, which are issued to fund infrastructure projects, are supported by the income generated by those projects.

Cities using this tool: Ahmedabad (Ahmedabad Municipal Corporation), New Delhi (India)



#### BANK LOANS AND FINANCING

The most conventional methods for financing urban infrastructure projects are term loans from bank or other lending institutions. The steps involved are:

- Municipal council/standing committee approval to issue debt
- Technical approval from the concerned local authorities
- Apply for term loan, with brief description of the proposed project, DPR with an accompanying financing plan, past budget documents and necessary approvals
- The lending institution establishes the loan terms based on the risk perception of the project and the applicant's financial viability

Cities using this tool: Tamil Nadu Urban Development Fund (India)



# **DIRECT FEES THROUGH TOOLS LIKE CONGESTION PRICING & PARKING FEES**

Direct fees are user charges for public amenities and infrastructure, such as transit, toll roads, bridges and parking facilities. Direct fees are dependent on local conditions and case-specific based on the demand. Normally these fees are collected by public and private authorities to recover capital cost and operation and maintenance costs of the infrastructure.

Cordon area congestion road pricing is a system of charging users for entering and using roads in a demarcated or restricted area that is subject to congestion due to excess demand. This helps regulate demand and managing congestion. The revenue collected is used to support and improve transit services and transportation systems.

Cities using this tool: Singapore, London (UK)





#### **GRANTS**

Grants are non-repayable funds disbursed by one party (grant makers), often a government department, corporation, foundation or trust, to a recipient, often (but not always) a non-profit entity, educational institution, business or an individual. In order to receive a grant, some form of "grant writing," often referred to as either a proposal or an application, is required. Most grants are made to fund a specific project and require some level of compliance and reporting. The grant writing process involves an applicant submitting a proposal (or submission) to a potential funder, either on the applicant's own initiative or in response to a Request for Proposal from the funder.

Cities using this tool: Singapore, London (UK)



# SPECIAL FUNDS SUCH AS URBAN TRANSPORT FUND (UTF)

The Ministry of Urban Development, Government of India recommended the creation of a dedicated transport fund, both at the state and the city-level, for funding urban transport initiatives. Creation of the Urban Transport Fund is a mandatory reform under JnNURM guidelines. The UTF will be collected in the form of a surcharge on the sale of petrol, taxes on existing personalized vehicles and an Urban Transport tax on the purchase of personalized vehicles. It will be used for traffic transportation studies, capacity building, awareness building and projects aimed to promote public transport, NMT and accessibility to public transit.

Cities using this tool: Indian Infrastructure Debt Funds



# **CROWDFUNDING**

Crowdfunding is an Internet-enabled way for businesses or other organizations to raise money – typically from about US\$1,000 to US\$1 million - in the form of either donations or investments, from multiple individuals. This new form of capital formation emerged in the wake of 2008 financial crisis in response to the difficulties faced by early-stage enterprises in generating funding. In less than a decade, crowdfunding has spread across the developed world, and is now attracting considerable interest in the developing world as well. Crowdfunding began as an online extension of financing by friends and family: communities pool money to fund members with business ideas. During crowdfunding's early stages, capital came in the form of donations, but increasingly it takes the form of debt or equity investments targeting high-growth entrepreneurs - only one of many ways the model is evolving as awareness spreads. Crowdfunding uses web-based technology and the knowledge and wisdom in communities to determine which projects should receive funding and how much funding they should receive, as well as providing real-time feedback on start-ups and small businesses. It leverages the power of technology, particularly social media, to market the idea, raise funds, and hold entrepreneurs accountable. Developing economies may have the potential to capitalize on this new funding mechanism. Countries wishing to implement crowdfunding ecosystems need to understand how crowdfunding works, the role that government and regulation should play and the technological infrastructure requirements involved.

Source: Crowdfunding's Potential for the Developing World. 2013. infoDev, Finance and Private Sector Development Department. Washington, DC: World Bank





### **LOCAL CURRENCY LOAN**

A decade ago, the lending markets were less vulnerable to the currency exchange rates. Borrowings were happening in the preferred currency of lender putting the currency exchange risk in borrower's basket. The revenue currency being different from the lending currency posed risk and required to always keep a watch on the volatility in currency exchange rates. Thereafter, the need for a sustainable lending term and conducive environment for private sector development was observed. Accordingly, the lenders identified a mechanism to support lending in the local currency, by absorbing the risk of currency rates.

Local currency loans capture the financial benefits within local area to promote local economy. Loans in local currency can eliminate the currency exposure for companies operating in developing countries. A company may prefer a local currency loan instead of a foreign currency loan if it has its main income in a local currency or if it wants to minimize the credit risk and uncertainty connected with a foreign currency loan. Loans in local currency can be provided to new as well as ongoing project companies.

IBRD offers local currency financing through (i) loan conversion options, and (ii) free-standing local currency swaps. i) Local currency conversion option: The conversion option is included in the loan agreement to enable borrowers to convert current disbursements (Automatic Conversion of Loan Currencies or ACLC) and disbursed and outstanding loan balances (DOB) into local currency; all subject to market availability. IBRD may provide the conversion by a) hedging through swap market transactions, or b) funding through local currency bond issuance (back-to-back financing).

IBRD Local Currency Financing, The World Bank | Treasury

As an internationally rated AAA institution, IFC leverages its powerful credit to provide customized local currency products to private sector clients. The local currency can come directly from IFC in the form of a local currency loan or swap. IFC also mobilizes other sources of local currency, like local banks and capital markets, through credit enhancement. Whether the client prefers senior debt, quasi-equity, funding from IFC or from some other source, IFC stands ready to provide flexible, market-based instruments.

IFC and Local Currency Financing, International Finance Corporation, World Bank Group





#### **DISCRETIONARY TRANSPORTATION IMPROVEMENT GRANTS**

The since 2009 United States Department of Transportation (USDOT) offers discretionary grants through the "Better Utilizing Investments to Leverage Development, or BUILD Transportation Discretionary Grant program" (formerly known as the Transportation Investment Generating Economic Recovery, or TIGER Discretionary Grants). Funds are awarded to agencies at State and local levels for funding innovative capital projects. The program uses merit-based evaluation criteria to select projects. The project types that have received funding include road and highway improvement projects, transit projects, rail freight projects, port development projects, and bicycle and pedestrian infrastructure projects. These discretionary funds could be used for funding road safety projects within a TOD area.



#### **ROAD SAFETY FUNDS**

A road safety fund has been established in many states in India. The source of the fund is from the revenue collected from traffic fines and registration of the vehicles, along with contributions from State and Federal governments. States like Bihar, Odisha, Maharashtra, Kerala, Punjab etc have developed guidelines and enabled legislations for maintaining this fund and usage including road safety studies and research, road crash data analysis, road safety awareness programs, identification of accident-prone areas and corrective measures, training programs, and trauma care. The legislations also included regular road safety audits and elaborated on the roles and responsibilities of the operating agency: including receiving proposals, selection of programs that will receive funds, and allocation of funds.

Cordon area congestion road pricing can also be used as a source for a road safety fund. Started in 1998, Singapore's Electronic Road Pricing (ERP) scheme, which is managed by the Land Transport Authority (LTA), is a fully automatic network of gantries monitoring congestion. The overhead gantries detect each vehicle's 'in-vehicle unit' when passing beneath to deduct the fee from a smart card. The variable prices are reviewed quarterly to manage traffic demand depending on the location, traffic direction, day of the week, time, and type of vehicle.

In countries, like Argentina, a percentage of money collected as insurance fees is directed to Agencia Nacional de Seguridad Vial (ANSV) - the nodal agency in charge of road safety.



The Argentinian government passed a law creating the nodal agency responsible for road safety - Agencia Nacional de Seguridad Vial (ANSV). It was created as a decentralized entity with sustained funding (1 percent of all vehicle insurance premiums) and a legal mandate to manage road safety across the country. Following its creation, the Argentinian Government sought the World Bank's financial and technical support to address challenges in its Road Safety Project such as achieving coordination and accountability in a federal system and maintaining social and political support.

In addition to national road safety funds, there are global programs funded by international organizations such as the UN, and different philanthropies and donors.

The United Nations Road Safety Fund (UNRSF) was established in 2018 as a UN Multi-Partner Trust Fund. It deals with the Sustainable Development Goals (SDG) targets to halve the number of global deaths and injuries from road traffic accidents; and to provide access to safe, affordable, accessible and sustainable transport systems as well as improve road safety for all, respectively. This fund aims to finance actions in low- and middle-income countries to:

- Substantially reduce death and injuries from road crashes
- Reduce economic losses resulting from these crashes

Similarly, the Bloomberg Initiative for Global Road Safety (BIGRS) is multi-country initiative that aims at reducing fatalities and injuries from road traffic crashes in low- and middle-income countries and cities by strengthening road safety legislation at national level and implementing proven road safety interventions at city level. These chosen cities will be receiving the following assistance:

- Senior-level, full-time staff to work within city governments on their road safety initiatives for up to 5 years
- Comprehensive technical assistance from the world's leading road safety organizations
- Training for police officers and other relevant city staff
- Support to create hard-hitting mass media campaigns

During 2010-2019, it has committed \$125million each in two phases, and has committed an additional \$240 million for a renewed Phase 3 (2020-2025).

