International Growth Centre

Supporting Affordable Housing in Rwanda – Plans and Options

Policy Note

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Executive summary

This note summarizes the current plans aiming to support affordable housing especially the housing for the lower income segments of the Rwanda urban population. The note exposes a number of critical policy options and issues and argues that policy dialogue among key stakeholders and identification and selection of specific options are essential at the present stage of forming the affordable housing framework. The first section discusses affordability issues that are critical in defining the government's priorities and in establishing a suitable fund. Second, seven fund options are discussed to feed informed decisions on key policy issues (Table 1). A short summary of the international experiences with urban development funds are in Annex 1.

Main Lessons and Recommendations

The fundamental question the Government should answer first is the depth and breadth of the housing subsidy program, and in particular what are the target household income segments to support.

The adequate form and scope of subsidy instruments and intermediaries can be decided based on the answers to the above fundamental questions.

Further analysis of housing demand, simulation of housing affordability, and sensitivity analysis of potential subsidy instruments are vital to support informed decisions on the above questions.

Establishing an *affordable housing working group* would be instrumental in leading vital policy dialogue and advising policy decisions on the overarching objectives, institutional framework, and instruments towards scaling up the affordable housing market in Rwanda.

Preliminary simulation results suggest that providing large-scale housing to the lower income household categories requires a combination of the supply- and demand-side subsidies. Any sole subsidy instrument would just narrowly broaden the affordability and would fail to reach the lower income categories.

Starting with a relatively small and focused fund is always better than starting a big and broad entity. However, a gradual expansion should be envisaged in the initial business plan, to ensure the fund moves in the direction that increasingly expands the housing market to the lower income strata of the Rwandan households.

An infrastructure fund that financed merely off- and on-site infrastructure would be instrumental, but may move the affordability barrier just moderately lower than the current frontier of the un-subsidized market housing provision in Rwanda.

The combination of supply- and demand-side subsidies can be furnished with either a narrow infrastructure UDF combined with an in-Ministry entity that manages the demand-side housing subsidies; or a broad scope UDF with an infrastructure and a housing subsidy window.

The effective UDF should be a small and neat entity that outsources all market functions to financial intermediaries and a trading SPV, and provides for wholesale financing of the market-based functions and subsidy instruments.

Table 1 Options for Structuring an urban Development Fund

Fund Option	Fund Mandate	Decisions by	Fund Governance
1 Narrow focus UDF	Only infrastructure	Ministries	Legal entity, Small team
2 UDF plus Demand Side Subsidies from Ministries	Only infrastructure	Ministries with housing subsidies	Legal entity, Small team
3 Off-budget Infrastructure Fund	Only infrastructure	Ministries	Small team
4 UDF that Serves Beneficiaries	Only infrastructure	Ministries	Legal entity, Medium team
5 Broad Scope Infrastructure UDF	Only infrastructure	Ministries/Fund	Legal entity, Medium team or Administrator
6 UDF with Broad-Mandate Fund Administrator	Infrastructure plus Housing Subsidies	Fund/Board/ Ministries	Legal entity, Large Administrator
7 UDF with Outsourcing Market Functions	Infrastructure plus Housing Subsidies	Fund/Board/ Ministries	Legal entity, Medium Administrator

Supporting Affordable Housing in Rwanda – Plans and Options

Introduction

1. The Government of Rwanda plans to establish an urban development fund to support local entities in responding to the growing urbanization pressure. The Article 11 of the urban planning and building Law[1] states: ..”For the purpose of the implementation of this Law, there is a need to create an Urban Development Fund. A Presidential Order shall determine its organization, functioning, and responsibilities.” The long and successful history of the hundreds of municipal or urban development funds operating worldwide underscores the reasoning of an urban fund, while the rapid growth of many Rwandan cities underscores the demand for a specialized intermediary fund outside the fiscal system that gradually leads cities to the market. However, experiences in establishing development funds suggest that the funds should be carefully tailored to ensure maximum consistency with the national circumstances, the level of development, and best practices on development funds.

2. Providing affordable housing for the lower income households is among the major challenges even in well-developed countries. The reason behind is that the market mechanisms and market instruments support housing provision for the higher and middle-income households who are able to save for initial investments/down-payment and to repay the loans obtained for building, buying, or renting housing units. Governments around the world provide various forms of subsidies to support housing affordability for the lower segments of the middle-income households and specifically to the low-income households. The specific challenges the less developed countries face include: a) the low-income segments are the largest part of the housing market (about 70% in Kigali[2]), and b) the governments have limited resources compared to rich countries. The plan of the Rwandan Government to support affordable housing is thus well justified and deserves attention and efforts in structuring suitable institutions and instruments.

3. Several preparatory steps have been made towards creating a framework, institutions, and instruments for supporting affordable housing,[3] most notably The Kigali housing market study[4], The Urban Planning and Building Law (N°10/2012 of 02/05/2012) instructs the establishment of an Urban Development Fund (article 11) and the Prime Minister Instructions Determining the Conditions and Procedures for obtaining Government Support for Affordable housing Projects 2015.

4. This note summarizes the current plans and draft policy documents aiming to support affordable housing in order to accelerate expansion of the housing stock for the lower income segments of the population in Rwanda’s urban areas. This note aims to expose a number of critical policy options and issues, and argues that policy dialogue among key stakeholders and identification and selection of specific options are essential at the present stage of forming the affordable housing framework. The most critical issues and options are discussed below.

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[1] Law governing Urban Planning and Building in Rwanda (N°10/2012 of 02/05/2012)

[2] Jitendra N. Bajpai, Brian Halusan, and Sally Murray: Building Affordable Neighborhoods in Kigali - A Framework for Incremental Development and Low Income House Building, International Growth Center, 2015 (Bajpai at al. 2015)

[3] Several other legislations support the enabling environment for introducing affordable housing instruments.

[4] Planet Consortium 2012: *The Housing Market Demand, Housing Finance, and Housing Preferences for the City of Kigali*

Key areas and issues for policy dialogue

5. The Government of Rwanda (GoR) has considered interventions aimed to support the expansion of the housing stock, with efforts to provide a substantial volume of dwellings for the lower income families. The analysis of instruments and selection of options need to be based on the understanding that any housing support system should harmonize market and social objectives in order to be effective, since any housing unit built is inevitably part of the housing market. The key areas of needed policy dialogue include issues such as: Affordability, financial intermediary, fund modality, outsourcing, and financing of the housing subsidy program.

Affordability issues

6. ***Affordable housing***: There is no objective definition for affordable housing,[5] but affordability is often considered as a dwelling that costs (mortgage or rent) no more than 30% of household income. Given the challenges Kigali faces on housing shortage, the Holland approach of affordable rental housing looks more relevant than the very market oriented USA or UK approaches[6] at least for the lowest segments of the household income categories.

7. For the purpose of designing an affordable housing program, affordability can be approached in two ways: by *household* income *categories*, and by *housing cost categories*. Thus the GoR needs to decide and define the key *household* and *housing unit* categories to support; options include:

a) Support affordability up to the lower to middle class households (say USD100-1000 per month);

b) Support only the low-income segment (say USD100-300 household income per month),

c) Some instruments to support the lower income, and some for the middle income, categories;

d) Support specific low-income employment categories like teachers, police, healthcare staff, or low-paid civil servants in addition to some general income based schemes;

e) Define housing unit clusters to support, described by key characteristics like size, form, density, and maybe location.

8. ***Analytic works and policy decisions***: Analytic works are needed to support informed policy decisions listed above. There are two good sources already available. The 2012 Kigali Housing Market Study 2012 estimates a very large *number* of housing gaps, elaborates the household income categories, but does not address *affordability* sufficiently. The most useful study to feed policy dialogue on affordability is carried out under the International Growth Center (Bajpai at al 2015). This study estimates affordability level by income strata with ability to pay by household income categories ($80, $150, $300 and $500 per month), and provides a cost model for evaluating low-income housing options. The model helps by estimating the cost of *off-site* infrastructure, *on-site* infrastructure, and *on-plot services,* separately to estimate the unit cost of the dwelling elements and analyze housing alternatives. However, the same model can also be used by the government to estimate the potential impacts and funding needs of various subsidies, particularly if the GoR provides infrastructure to the border of the building plots that would reduce the dwelling unit price and expand affordability.

[5] For instance, housing in the United States is considered to be affordable when it costs no more than 30% of a household's income, and the banks use this benchmark in approving mortgage capacity of borrowers.

[6] In Holland, affordable/social housing is rental-housing subsidized by the government, and represented about 40% of the housing stock in late 1990s (Dolata 2008).

9. ***Off-site and on-site infrastructure*** constitute a very substantial share of the total investment cost of a large-scale housing development (ibid table 4 page 13); the Bajpai simulation suggests that an infrastructure subsidy can reduce the total cost to the developer (/buyer) by 20%-40% in lower-income and high density housing. Therefore financing infrastructure will represent a substantial subsidy, but also requires large amount of funding from the GoR. Furthermore, it is of utmost importance to set rules and mechanisms that ensure these subsidies are channeled down to the final beneficiaries instead of expanding the investors' profit, a typical challenge in supply-side subsidies.

10. ***Selective subsidization:*** Table 1 below signifies the need for selective subsidization, since as opposed to general "blanket subsidies", well targeted subsidies tailored to the needs and capacities of the beneficiaries would have bigger impact and would save fiscal resources.[7] Specific subsidies can be channeled based on either income or some employment categories, like teachers.[8] The ground reality is that without subsidization the current housing constructions are largely focused on dwellings above the *affordable* low-income categories. Thus, expanding the affordable, formal, market for lower income household (HH) categories would represent a quantum leap in a good direction. There are means and procedures that allow large and mixed-income housing neighborhoods to be built, which support different HH income clusters with different tailored subsidies within the same neighborhood.

11. ***Instruments to support affordable housing***: A mixed set of instruments has been considered to support/subsidize affordable housing in Rwanda, including:

Supply Side (Supporting Developers):

1. Support the construction of infrastructure services and facilities related to affordable housing projects;
2. Support the preservation and upgrading of urban neighbourhoods;
3. Fund emergency repairs as part of disaster response;
4. Support material bulk purchase schemes for government assisted housing programs;
5. Enable access to capital for subsidized low cost and social housing programs;

Demand Side (Supporting Household Renters/Buyers):

6. Provide guarantee to enable access to mortgage loans for low income home buyers;
7. Provide down payment assistance for low-income home buyers;
8. Establish a rental subsidies program;
9. Fund social housing schemes;
10. Finance mortgage interest reduction;
11. Establish first home saving scheme combined with finance or micro-finance;
12. Establish home improvement scheme combined with finance or micro-finance.

12. ***Supply and Demand Side Support***: The first five listed instruments belong to the supply side of the housing market and aim to reduce the total construction cost of housing units. If provisions are enforced to proportionately reduce rental fees or the sale price of the units, with defined mark-up for the developers, these can expand the supply of affordable housing. A bulk-purchase entity could reduce cost of construction, but with its large and constant demand it can also motivate large investments in domestic production of building materials. The last seven instruments target the demand side of the

[7] The Arlington County's (US) commitment to Affordable Housing helps to support affordable housing by: Providing financing and zoning incentives for developers; Working with local non-profits that finance and develop affordable housing; and Providing rental assistance to low-income families;

[8] For instance, teachers in rural areas may get a cow to reward good performance and increase HH income. Teachers in urban areas cannot benefit this way, but they may receive a combination of housing subsidies that reduce the financial needs to the affordability level constrained by their US$80 – US$100 monthly income.

housing market and aim to help affordability by reducing the financing cost for the final beneficiary households.

13. ***Simulation of affordability:*** Affordability can be simulated in two ways. (i) *FINANCING AFFORDABILITY:* calculating the affordable mortgage payment for each HH income cluster, and estimate the maximum cost of dwelling units affordable with these mortgages. (ii) *DWELLING AFFORDABILITY*: estimating the costs of various possible dwelling units, according to their technical characteristics, and ranking them by size and cost/m2, to establish *physical modality for 'affordable' housing*. Based on these two affordability tests, policy makers can draw conclusions about what kind of dwelling units match the incomes of the household categories? Table 2 illustrates an affordability test[9] for the lowest 6 household income categories, which covers about 80% of Kigali households (the original incomes are transformed to US dollars for simplicity).

14. ***Supporting the lowest income strata.*** Table 2 shows that without subsidies, the lowest income strata (100,000RWF/month) would be able to own or rent dwelling units that cost RWF1.7million each (2.3 thousand dollars). However, in large scale developments no such houses seem to be possible to build that would meet building regulations and cost less than 3 thousand dollars each.[10] This is a big concern because this HH income category represents about 50-60% of the existing housing demand in Kigali, and an even larger proportion of latent demand among rural people who would benefit from moving to the city and boost its labor market[11].

15. ***Self-building Housing Schemes*** A program known as *incremental self-building housing schemes* (also known as *Sites-and-Services)* offers a possible solution for HHs that earn about USD100 income monthly (Bajpai at al. 2015). It worth testing to *provide off- and on-site infrastructure, a site plan for a neighborhood, and the foundation of the houses with a minimal (one room plus amenities) initial structure*; and then let the owners expand the houses gradually as incomes, savings, or access to credit improve over time. This solution may meet the financial affordability of the said HHs, demanding a USD30-40 monthly mortgage payment capacity; the initial dwellings can be built from USD3,000 if infrastructure and mortgage subsidies are available (first row of Table 2). These schemes would be more successful in lower-cost land zones outside the city center, or low-cost zones within large mixed-income neighborhoods; cheaper land would further increase the affordability of houses, and sustain their targeting at lower income populations.

16. ***Affordable Housing for Low-income Households:*** The simulation in Table 2 shows that the lowest (in our example, 'A') category HHs might be served with a self-building housing scheme with subsidies (row 1). The initial structure (one-bedroom house compliant with building codes, including land and infrastructure) could cost up to USD3,900, of which the family needs to cover USD2,300 from a mortgage loan (or through rental) with a third party/GoR contributing infrastructure and mortgage subsidies. The B and C income categories can be served with affordable housing if infrastructure and mortgage interest subsidies are jointly provided (rows 2 and 3 of Table 2). Under the assumptions of the said model, category C HHs can finance a USD8,700 house from 30% of their HH income, but can obtain

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[9] We used the results of the 2012 Kigali housing survey and the Bajpai/Bertaud simulation of housing model options methodology (Bajpai at al 2015 annex). The model assumes that 30% of the HH income can be used for debt repayment, the interest rate is 18%, down-payment is 10%, and the mortgage term is 20 years.

[10] Indeed, providing with dwelling units the HHs those below USD100 per month income in large volume of development seems impossible today in any country of the world.

[11] The Housing Market Demand, Housing Finance, and Housing Preferences for the City of Kigali; Planet Consortium, June 2012;

a USD12.5 million dwelling unit if provided with a subsidy for 20% of infrastructure costs, and an additional mortgage interest subsidy that would reduce interest from the 18% market rate to 14% effective rate for the subsidized HHs. More subsidy instruments could be added to reduce the financing cost for the households and improve the dwelling affordability (or standard) further; but these solutions increase the complexity of the subsidy system, expands the fiscal burdens, and thus require policy analysis and high level decisions.

Table 2 Affordability test by household income clusters and possible size of dwelling units

Subsidized Affordable Housing categories[12]	Household Income		Ability to pay	Possible Affordable DU costs USD		
	RWF per month	USD per month	30% income (USD)	Affordable Dwelling Unit cost basic	Affordable w infrastructure subsidy (A40-B30-C20%)*	Additional mortgage interest subsidy 4%
A	100,000	133	40	2,325	3255	3,907
B	200,000	267	80	5,225	6793	8,152
C	300,000	400	120	8,709	10451	12,541
D	400,000	533	160	12,193		14,631
E	500,000	667	200	15,676		18,812
F	600,000	800	240	19,160		22,992

Source: author based on Bajpai at al 2015; Memo: *Infrastructure subsidy is 40% for category A housing, 30% for category B, 20% for category C, and no infrastructure subsidy above C.

17. ***Affordable versus Market Housing:*** Table 2 also indicates an option when the higher D-E-F *Affordable housing* categories (RWF400-600 thousand incomes) will receive the 4% interest rate subsidy. Households with higher than RWF600,000 (USD800) monthly income will be considered as clients of *market housing* development with no or very minimal subsidies; but for instance, the mortgage saving schemes will inherently be applicable for the market housing too. Segregating the housing demand by HH income clusters and aiming at subsidizing the various income categories with different instruments and to different extents would substantially expand the housing affordability and demand. Needless to mention that the calculations presented in Table 2 are just intended to illustrate the possibility of simulating supply and demand side subsidies, and analyzing the sensitivity of demand to each of the considered subsidy instruments; a more thorough analysis is among the required next steps for the policy makers in Rwanda.

18. ***Affordable housing working group***: It is advisable to set up an *Affordable Housing Working Group* with experts from key agencies including, but not limited to: RHA, RSSB, MININFRA, MINECOFIN, MINALOC, RTDA, City of Kigali, and the ministries of Education and Health. This working group may arrange further detailed testing by using the analytic model presented in the IGC note, or may order the testing of new numeric models or target analyses. The working group eventually needs to advise the GoR and the Affordability Housing Subsidy Approval Committee on the *definitions and clusters of affordable housing* by addressing the options listed above. Namely: defining HH income categories, the level and means of subsidies for each, and 'physical' housing typologies defined by costs, density, and quality that matches different levels of HH income affordability categories.

[12] These household categories are derived from the 2012 housing survey and the DU cost estimates from the Bajpai at al. 2015 report.

19. ***Affordable Housing Guidelines***: The MININFRA/RHA or other respective body can adopt and publish an *Affordable Housing Guideline* to inform key stakeholders, including developers and interested households. Forming and publishing an *Affordable Housing Guidelines* based on these defined categories would provide fundamental information to the market (both supply and demand side) and with adequate subsidy policies attached would boost the lower income segments of the Rwanda housing market, especially in Kigali.

Intermediaries for supporting affordable housing

20. ***The Role of Ministries or Government Entities:*** Various Government entities (MINECOFIN, MININFRA, RHA, etc.) should play critical roles in designing and implementing the affordable housing subsidy policies; since eventually the Government needs to decide the scope, magnitude, modalities, conditions, and procedures for providing subsidies to support affordable housing. A high level government body like the *Affordable Housing Support Approval Committee* is important to guide and oversee the housing subsidy process and approve large scale projects. However, managing the large variety of subsidy instruments on a daily basis, insourcing and releasing funds to a large variety of beneficiaries, does not suit the regular operation of ministries or the said committee. Thus, just like in many countries in the world, it is justified to establish a dedicated entity to execute and conduct day-to-day management of the affordable housing support program. The various options and modalities of such entities are discussed below.

21. ***Independent Fund***: Establishing specialized Funds for supporting and managing development of affordable housing units is a very common approach in developed countries. Funds offer several benefits, including among others: they are independent from the budgeting cycles; they are market conforming and well manage the in- and outflow of money (revolving funds); they can offer professional management to support effective use of money and targeting of the intended beneficiaries; and they can flexibly interact with private market entities as may be deemed necessary. Meanwhile, the Funds can be well controlled by higher bodies, subsidy rules, and by set control procedures for releasing the money.

22. ***Fund options***: Options that has been considered in Rwanda:

a) Urban Development Fund with a narrow focus on infrastructure to support affordable housing;
b) Urban Development Fund with two specialized windows for various instruments to support different direct beneficiaries: (i) infrastructure support for developers; (ii) housing subsidies for households;
c) Two separate funds: Infrastructure Development Fund and Housing Subsidy Fund;
d) Urban Development Fund with broad focus on urban development.

23. ***Option 1–Narrow focus UDF:*** The simulation results in Table 2 indicate the possible impacts of option a); a narrowly focused UDF that would finance solely infrastructure subsidies may not be sufficient to meet the overarching objectives of a housing subsidy program. The infrastructure subsidy could have a very substantial (40%) impact on the lowest housing categories (A and B in Table 2), but its impacts on benefits are fast reducing as the plot-size and the value of dwellings increase. The other lesson is that a sole infrastructure subsidy might help the highest-income category of affordable households, albeit to moderate extent, but will not suffice for housing units in the A, B, and C low-income housing categories. It could well happen that a UDF focused only on infrastructure would entail substantial fiscal expenditures, while would only improve housing affordability for the higher income categories. Some other supply-side instruments (bulk materials) would marginally improve affordability further, but are largely insufficient for providing housing for the lower income HH segments. The

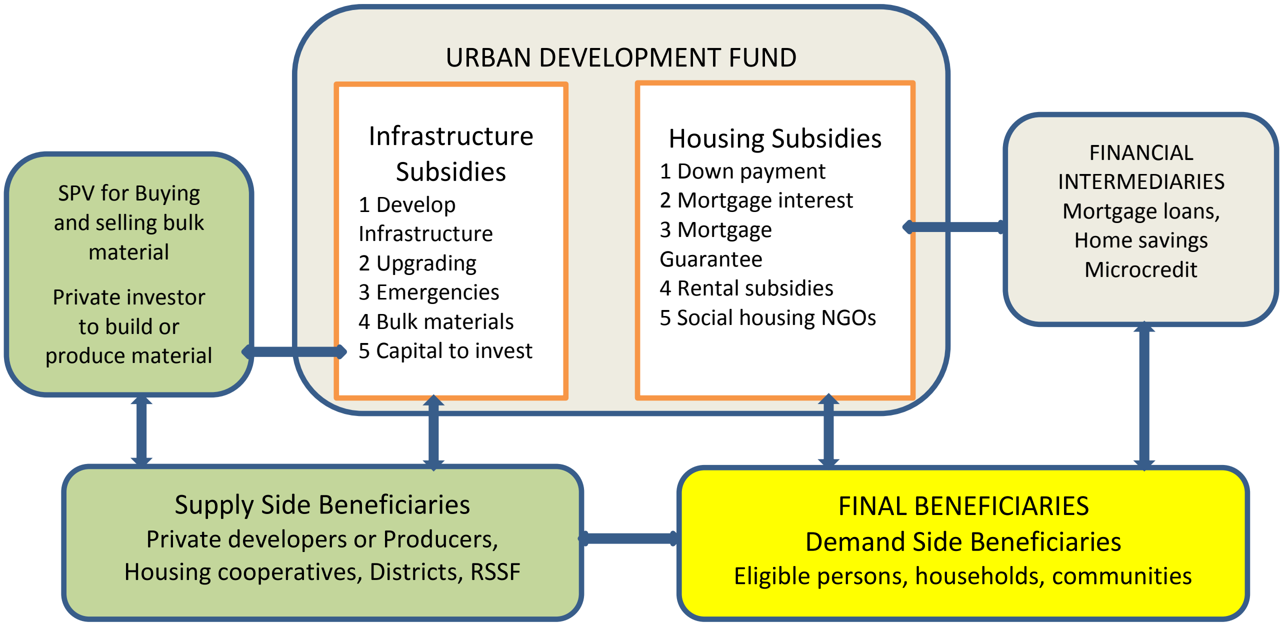
simulation suggests, however, that by combining supply and demand side subsidies, an UDF could effectively target lower income households, serving them with initial small dwellings.

24. ***Option 2–UDF plus Demand Side Subsidies from Ministries***: It worth considering supplementing a narrow focus UDF with demand-side subsidies channeled directly from various ministries such as MINECOFIN and/or MININFRA/RHA. In this scenario, the ministries would adopt and announce the housing subsidy policy and program and invite the financial institutions (BRD, commercial banks) to offer the agreed housing subsidy products under free market conditions and disburse the subsidies from the Treasury based on specific contracts with MINECOFIN. This subsidization modality works in developed countries with well-developed financial markets, strong treasuries, and an army of agents who help families in structuring the often complicated deals. But, this modality may appear to be overly complicated and difficult to control in Rwanda's circumstances. The main challenge is who should implement, and how to combine the various subsidies, control the eligibility and compliance, and plan the budget for the combined subsidies. *In this option the developers might account for only the supply-side subsidies they receive in assessing which portions of the market they can provide for, and thus leave the low-income households unserved*.

25. ***Other Fund options:*** The considered different clusters of final beneficiaries and the respective instruments suggest selecting from option b) and c) of the above fund modalities. Selecting option c) i.e. establishing two separate and independent funds is professionally well justified, because of the very different roles and different natures of the beneficiaries and instruments. However, there are two arguments that support option b): First, the underlying legislation (Article 11 of the Urban Planning and Housing Law) instructs "*establishing an urban development fund"*. This requirement can be satisfied with either one FUND with two windows, or one narrow infrastructure fund (one window), but having two windows in the fund would provide a more practical and powerful solution to the housing shortage. Second, policies and joint financing for the two funds can be better harmonized under one UDF holding with two windows. The above options can be seen also as phases in developing an enabling environment, so over time the fund structures may change. Starting with a broad-focus UDF (option d)) is not advisable, because the limited resources of the GoR would not achieve measurable impacts when spread so thinly.

26. ***Instruments and beneficiaries***: Figure 1 reflects the complexity of a possible housing subsidy program under one UDF; albeit a capable housing subsidy management unit in MINECOFIN may serve the purpose of the housing subsidy fund. The figure suggests that a) the framework should provide housing solutions for the *target final beneficiaries*; b) each instrument must be tailored to the needs and capacities of its intended direct beneficiaries; c) the most effective support may apply different rules and instruments to different affordability categories. For instance, the package may subsidize rental housing construction and/or rental-payment for those who can't afford to own a housing unit, but are able to pay subsidized rent. Or a home-saving scheme may help young people become home buyers in 10-15 years-time.

Figure 1: UDF with two sub-fund windows and instruments



27. ***FUND with other Intermediaries***: Figure 1 reflects that it is advisable to tailor the fund to be a neat and clean small entity with an adequate but narrow scope, and simple procedures. The figure shows that the FUND should be an intermediary between the Government's fiscal system and the various direct and final beneficiaries. Therefore, the scope of the fund should be tailored to this intermediary function, and designers should exclude from the FUND other functions that are better served by independent entities. For example, it is advisable to set up a Special Purpose Vehicle (SPV) for buying and reselling bulk building materials to beneficiaries.[13]The UDF may provide capital subsidies for the construction of large production plants for domestic building materials intended for affordable housing. Finally, current financial institutions or their new subsidiaries can manage any mortgage loans, mortgage savings, and microfinance schemes better than the FUND itself. The role of the FUND in these cases will be limited to channelling rule-based subsidies to these private sector intermediaries on behalf of the Government.

Governance of the Urban Development Fund

28. The fund governance options depend on the selected focus and fund modality. The main governance options and modalities are discussed below. Each option is assigned a UDF number just for easy reference (the numbers do not reflect priorities).

29. ***Governance of narrow focus infrastructure funds*** can be organized in two different ways under RHA or MININFRA: (i) a special account with limited mandates and with a very small administrating team; or (ii) an independent financial intermediary with broader mandates and a formal fund administration.

30. ***Option 3–Off-budget Infrastructure Fund:*** Should the government prefer establishing only a very narrow infrastructure fund to start expanding affordability, it may simply set up an *off-budget fund*

[13] The Iller Bank Turkey (municipal and provincial bank) has established an SPV to buy construction materials (e.g. pipes, cement, equipment, metal) in bulk with lower prices and provide them for the construction of public infrastructure (water, waste-water systems, roads, drainage) – see more in Annex 1.

as a sort of *special account* to ensure a dedicated budget and clear accounting for the infrastructure subsidies. This fund would solely finance off- and on-site infrastructure for eligible housing projects. The RHA[14] would receive, appraise, and propose supporting applications, and send their analyses to the *Affordable Housing Support Approval Committee (AHSC).* The AHSC would command various MININFRA entities (RTDA, WASAC, REG, RHA, etc.) to estimate their budgetary needs for servicing and complete the projects with off- and on-site infrastructure, based on the approved development plan and signed agreement with developer.[15] In this scenario the UDF requires a very small one-two person administration team that may also serve as the secretariat of the AHSC, because the presumably very low number of annual applications in the first few years. Interviews suggest the possibility of approving maximum 4-5 or less large development projects with infrastructure subsidy per year; this needs little administration.

31. ***Option 4–UDF that Serves Beneficiaries:*** In option 4 the UDF remains still as a narrow infrastructure fund but *interacts with direct beneficiaries* (developers, districts, housing cooperatives, NGOs) who are eligible to submit development plans for infrastructure subsidies. The UDF (rather than RHA) would receive applications, screen them for compliance, and submit them to RHA/MININFRA for appraisal and then formal approval by the AHSC. The UDF would then be authorized to channel infrastructure subsidies to the approved projects based on the AHSC decision. For instance, government entities may commit to developing the off-site infrastructure directly, but request/approve the developer to build the on-site infrastructure with the committed support of the UDF subsidy. This scenario would offer some flexibility and certainty for the developer, but also would allocate some risk to the developer (if the effective cost of infrastructure ends up higher than the subsidy). The UDF would be an independent legal entity and would require a somewhat larger, but still small managing team.

32. ***Option 5–Broad Scope Infrastructure UDF*** A more robust fund management would be required if more functions are delegated to UDF, including financing bulk-purchase, emergency response, or development of capital investment subsidies, and maybe appraisal of project proposals. To cover this broader set of functions, either a larger in-house professional fund management need to be established or a professional fund administration company should be hired in order to make the UDF operational.

33. ***In-house or Outsourced Administration***: The UDF can be established as an independent legal entity under MININFRA, owned and funded by the Government of Rwanda. International experiences suggest two possible alternatives for governing the UDF: a) In-house administration with *hired executives and staff* under the guidance and control of a Board; b) Establishing UDF under the guidance and control of a Board, but hiring a professional organization to *administer* the UDF. Governments in developing countries often try option a), resulting in the need to spend considerable time (2-3 years) to make the Fund operational. Furthermore, this governance option entails the risk that the Fund operates with low market conformity, low efficiency, and under political influence.[16]

34. ***Fund under Fund Administrator***: A broad infrastructure fund or a UDF with two windows (illustrated in Figure 1) would require a robust and professional administration. Hiring a professional *Fund Administrator* enables the UDF to become fully operational in a shorter time (say 6 months) and ensures efficient operation by using the systems, human capacities, and standard operation procedures

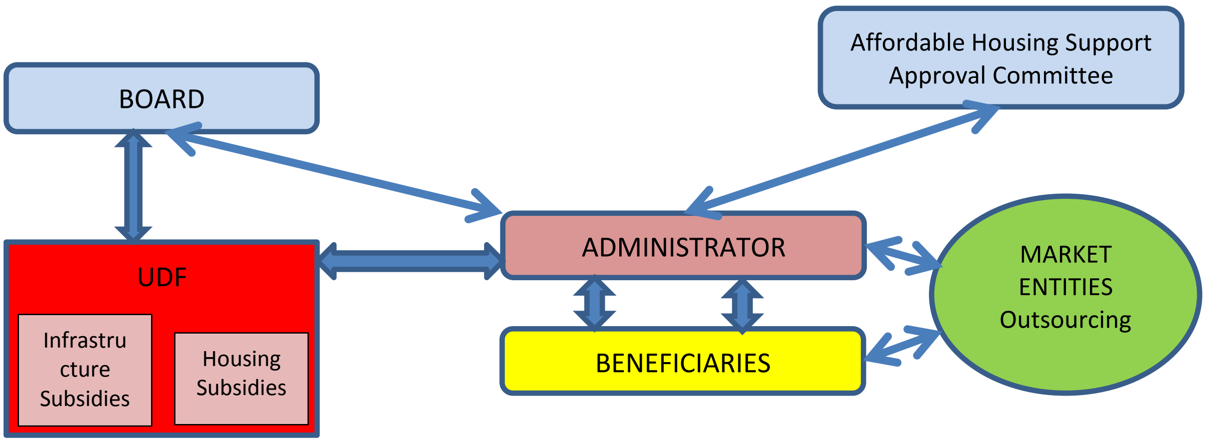
[14] These options have not been discussed with RHA and the Government may assign another entity to receive and appraise subsidy project applications.

[15] This procedure is in line with the Prime Minister Instructions Determining the Conditions and Procedures for obtaining Government Support for Affordable housing Projects 2015.

[16] The Annex 1 of this note summarizes the diverse international experiences.

of an existing Fund Administrator. The Rwanda Development Bank (BRD) would be a prime candidate to be UDF administrator because of its scope of business and proven capacity.[17] Thus, option b) is advisable and more details and sub-options are discussed below under this scenario.

Figure 2 Fund Governance Option – Independent Administrator



35. ***Fund Administrator Mandate Options***: The fund administrator may have narrow or broad mandates. Conceptually there are two distinct options to delegate mandates and competencies to the fund administrator. The narrow option is a scenario where all critical decisions and many actions are managed by various government entities, like MININFRA, MINECOFIN, RHA, and the Affordability Housing Subsidy Approval Committee, and the administrator just executes and accounts transactions generated by the said entities. Under this scenario, applications for housing support/subsidies are submitted to and appraised by the said entities like MININFRA or RHA, approved by the Affordability Housing Subsidy Approval Committee, and then the UDF administrator would merely process transactions. This procedure might work well for off- and on-site infrastructure support; it is unsuitable, however, for subsidizing a broader range of instruments or for subsidizing the final beneficiaries directly.

36. ***Option 6–UDF with Broad-Mandate Fund Administrator***: The Board of the UDF might delegate broad mandates and competencies to the UDF administrator–as it is common in other urban or municipal funds around the Globe.[18]. Under this scenario the fund administrator receives requests, filters for compliance, appraises the application, and submits the request for approval to higher bodies, namely to the Board and/or the Affordability Housing Subsidy Approval Committee. The fund administrator also implements transactions with the direct and final beneficiaries. The administrator is also responsible for drafting and implementing business plans and annual budgets for the fund (to be approved by higher bodies), with projections of funding needs and disbursements. Some specific UDF modalities under such broad mandates are discussed below.

37. ***Option 7–UDF with Outsourcing Market Functions***: It is advisable to outsource specific functions to entities that can manage them more efficiently than the UDF. Examples already discussed include establishing a Special Purpose Vehicle (SPV) for bulk purchase and resale of construction materials, and contracting commercial banks to manage subsidized mortgage loans, guarantees, micro-finance, or subsidized mortgage saving schemes. Figure 1 and 2 depict this scenario, which seems quite

[17] BRD Annual Report 2014/15
[18] Discussed in Annex 1

advisable. Under this scenario the UDF would receive broad functions, but still requires a relatively small administrator team, because the UDF would be largely a whole-sale financial intermediary and a sort of regulator (representative of the regulator to enforce housing subsidy rules by disbursement procedures) while the retailing functions would be performed by specialized private/corporate intermediaries (SPV and banks).

Outsourcing options

38. ***Special Purpose Vehicle***: The SPV could be established as a not-for profit subsidiary of the UDF to *buy and resell* construction materials to the direct beneficiaries (developers, housing cooperatives, districts, or CoK). The SPV may announce bulk procurement plans that could encourage large-scale investments in producing construction materials that can be efficiently produced in Rwanda. In turn the Government might authorize the UDF to offer capital subsidies for such producers to help import substitution.

39. ***Financial Intermediaries***: The Rwandan commercial banks and BRD are well suited to manage mortgage loans, micro-credit, or home-savings schemes; thus the UDF should cover only the whole-sale part of these transactions, namely to contract these schemes with the interested financial institutions and arrange channeling the respective subsidies to support their housing finance products. The subsidies may include mortgage interest rate or micro credit subsidies disbursed against verified transactions on a monthly basis, or support home savings through a saving principal subsidy or subsidized interest rates (after the saving time period elapsed). Likewise, the UDF can issue mortgage guarantees to eligible households who use them in applying for mortgage loans.

40. ***UDF Direct Housing Subsidies***: The UDF may contract rental housing entities/developers and channel rental subsidies on a monthly basis directly to the rental housing administrators. The UDF can issue letters about the housing down-payment subsidy to the eligible households who can use these in loan applications submitted to financial intermediaries. The UDF may contract and provide subsidies to the NGOs who are willing to invest in low-income housing in order to provide subsidized rentals for the lowest income families.

Financing the Affordable Housing Subsidy Program

41. The source, magnitude, and modalities for financing the affordable housing subsidy program largely depend on the initial scope, depth, and breadth of the program and the plans for gradual expansion. Starting with a moderate size of funding and a relatively simple and narrow scope is advisable because of the limited available resources and the low absorption capacity of the key stakeholders. Hiring a professional specialist to develop the business plan for establishing the UDF is strongly advisable. The business plan should explore both the demand and the supply side of the market (and would well utilize the Bajpai affordability analysis discussed above), and then prepare options and modalities based on the preferred fund scope, basic policies, governance option, and modality. The business plan should include a funding and a financial plan with financial projections for the first five years of operation.

42. ***Funding sources:*** The UDF requires funding from the central budget, because it aims to distribute various housing subsidies with minimal or nil reflow. The Government may commit a defined amount of general budget revenue at the establishment of the UDF and continue replenishing the fund annually from the central budget. Earmarking *some shares* of specific national tax revenues (e.g. VAT, PIT, property transfer tax, or capital gain tax) and channeling small shares of these to the UDF are in line

with international best practice[19]. The incumbent districts might be required also to contribute to financing a portion of the subsidies of the approved development projects from a share of the local property tax. Policy dialogue is required to support preparation of the UDF business plan with specific funding options.

43. ***Participation fee***: One of the reflows to the UDF could be a development fee or *participation fee* that the developers pays at the time of divestiture of the higher value (say RWF40 million and above) dwellings in a mixed income neighborhood complex. The reason is that the high-value dwellings are not eligible for affordable housing subsidies, but inevitably will benefit from the off- and on-site infrastructure that is built to support the affordable housing in the same complex. It is fair to request the developer pay a participation fee at the time of divesting the (effectively subsidized) high-value dwelling units. This rule is market-friendly, since it does not burden the developer at the time of investment, only at the time of divestiture. This fee also improves the targeting power of the affordable housing subsidies and provides financing to the UDF.

44. ***Market-based funding***: The UDF may move towards market-based funding of some specific subsidy instruments; but this reality is in the distant future. Furthermore, even market-based financing schemes include a substantial share of subsidies (see experiences of Findeter or US housing funds in Annex 1).

Lessons learned

The fundamental question the Government should answer is the depth and breadth of the housing subsidy program, and in particular what are the target household income segments to support.

The adequate form and scope of subsidy instruments and intermediaries can be decided based on the answers to the above fundamental questions and a corresponding detailed business plan.

Starting with a relatively small and focused fund is always better than starting a big and broad entity. However, a gradual expansion should be envisaged in the initial business plan, to ensure the fund moves in the direction that increasingly expands the housing market to the lower income strata of the Rwandan households.

Further analysis of housing demand, simulation of housing affordability, and sensitivity analysis of potential subsidy instruments are vital to support informed decisions on the above questions.

Establishing an *affordable housing working group* would be instrumental in leading vital policy dialogue and advising policy decisions on the overarching objectives, institutional framework, and instruments towards scaling up the affordable housing market in Rwanda.

Preliminary simulation results suggest that providing large-scale housing to the lower income household categories requires a combination of the supply- and demand-side subsidies. Any sole subsidy instrument would just narrowly broaden the affordability and would fail to reach the lower income categories.

[19] For instance in Turkey 6% of the general budget tax revenues (PIT, CIP, VAT) are channeled to the metropolitan municipalities to support urbanization (Kopanyi 2015).

An infrastructure fund that financed merely off- and on-site infrastructure would be instrumental, but may move the affordability barrier just moderately lower than the current frontier of the un-subsidized market housing provision in Rwanda.

The combination of supply- and demand-side subsidies can be furnished with either a narrow infrastructure UDF combined with an in-Ministry entity that manages the demand-side housing subsidies; or a broad scope UDF with an infrastructure and a housing subsidy window.

The effective UDF should be a small and neat entity that outsources all market functions to financial intermediaries and a trading SPV, and provides for wholesale financing of the market-based functions and subsidy instruments.

Annex 1

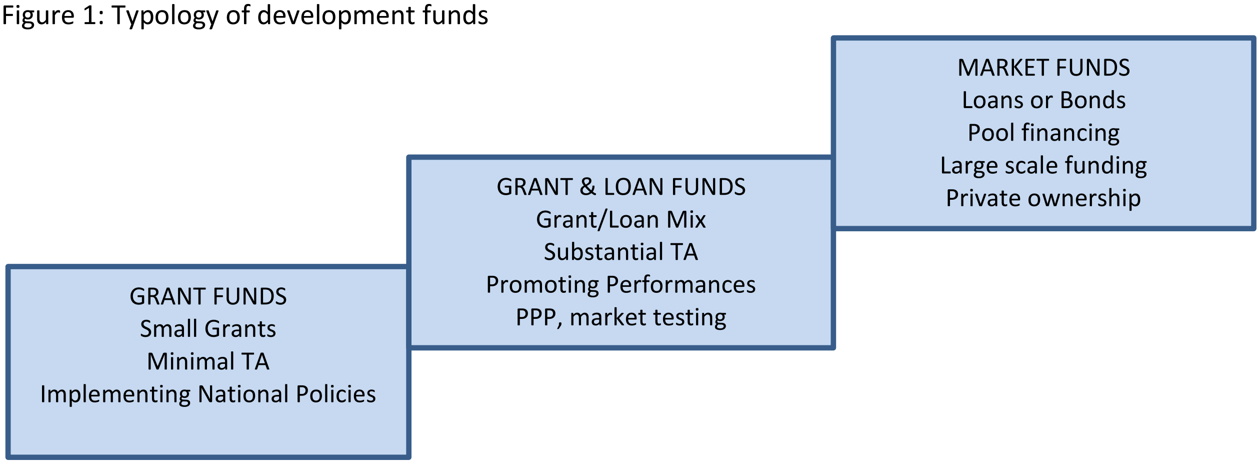
Municipal Development Funds[20]–International Experiences and Typology

1. The urban or municipal development funds (MDF) have a long history and most of the MDFs have shown apparent success; this is particularly true for the MDFs in developed countries where these funds provide for a very substantial part of infrastructure development finances[21]. MDF experiences in developing countries show a slightly different trajectory and mixed experiences, explained in large part by the very different economic, market, and political circumstances. But one key lesson learned is that setting adequate objectives, defining the adequate roles, and adequately structuring these funds are critical factors of their success and sustainability. It is useful, therefore, to discuss the typology of the MDFs that sheds lights on the factors that need to be taken into account in forming the UDF.

Fund Typology

2. The MDFs have several common attributes, including the following: (i) support sub-national public entities such as state, municipality, county, or special purpose entities/district (schools) to finance capital expenditures; (ii) provide for financing outside the intergovernmental fiscal system; (iii) provide for subsidized financing; (iv) provide technical assistance for the beneficiaries; (v) provide for financing with longer terms than the comparable national markets; and (vi) often aim to help beneficiaries testing and moving towards market-based financing. The spectrum of MDFs thus can be seen as a continuum development line from the simple funds that distribute grants on behalf of the governments at the one end. The other end of the line includes funds that provide fully market based financing and they are often private entities.

Figure 1: Typology of development funds



3. The MDF spectrum can be grouped into three main classes that are discussed below with specific examples and analysis of the underlying circumstances. The class C “GRANT FUNDS” (G funds) includes very simple entities (funds or off-budget units under ministries) established by the

[20] There are several popular names for development funds, including Municipal Development Funds, Urban Development Funds, Urban Infrastructure Fuds, municipal bond funds, and some even called as “municipal bank” or “corporation”. In this section we use the MDF term to distinguish between the international experiences and the UDF planned in Rwanda.

[21] For instance, the municipal bond market is larger than the corporate bond market in the USA and Canada (World Bank 2014).

governments to distribute grants across municipalities; the class B “GRANT & LOAN FUNDS” (G&L funds) includes more sophisticated public entities with mandates to combine grants and loans with market-like conditions, and provide technical assistance to beneficiaries; Finally the A class “MARKET FUNDS” includes public or private entities that operates in or closely connected to the markets and provide/channel debt (loan or bond) financing either from their own capital or by managing bonds issued against pooled demand.

4. The most critical factors that make the fund forms or modality adequate are the characteristics of the demand and supply of infrastructure financing in a country. The demand depends on the capacity of the beneficiary entities for managing development projects and for accessing and repaying debt. The supply depends on the depth and breadth of the national financial sector and the capital market. Both sides of the markets are weak in most developing countries, which justifies establishing MDFs in the first or second class (i.e. with some grant element). Indeed, experiences show poor performances of MDFs established by governments with overly optimistic and ambitious policies to provide market-based financing despite low borrowing capacities[22]. Many such MDFs violate the “golden rule” - namely to lend only to entities that have proven capacity for repaying; instead they often fall under the influence of politicians and directed lending. There are even worse experiences when ministries with no banking experiences lend money to municipalities that lack repayment capacities.[23]

GRANT Funds

5. Simple grant-based, municipal funds may seem similar to the development financing units or functions of ministries that distribute development block grants or earmarked grants for infrastructure development. The major differences are:

- The independence and flexibility of the G funds: the funds are off-budget entities with greater flexibility and ability to finance investments across budget cycles;
- The funds build strong capacities through technical assistance for planning, structuring, and implementation of the development projects;
- The funds can manage and distribute donor finances more flexibly;
- Finally, the funds may follow performance-based allocation of grants and can become the gateways towards testing and scaling up market-based financing. The establishing statutes of most MDFs often include the objective to move towards debt financing and market based funding as the capacities of the entities and the market substantially improve. In fact, many of them fail to “cross the Rubicon” and remain simple grant distributors for decades with no progress towards markets.

Examples of Grant Funds

6. ***The PMDFC Pakistan***: The Punjab Municipal Development Fund Company (PMDFC) is an example of a simple municipal fund. It was established in 1998 as a technical arm of the Local Government and Community Development Department of the Provincial Government. It not only finances road and solid waste or water projects, but also manages feasibility and design studies, contracts, and monitoring of construction on behalf of the cities. Although, the initial statute of the PMDFC included lending to municipalities, a Federal Government banned local government borrowing in

[22] Clarke Annez, Patricia; Huet, Gwénaelle; Peterson, George E. (2008): Lessons for the Urban Century: Decentralized Infrastructure Finance in the World Bank; The World Bank, Washington, DC 2008;

[23] The Ministry of Finance Estonia provided (never recovered) loans to municipalities in the early 1990s.

2001, thus PMDFC has been providing only grants and technical assistance, which has become a very dominant function in the recent years. The main areas of technical assistance (TA) include[24]: Feasibility & design review, O&M, Contract Management, Procurement, GIS Mapping, Development Planning, FMIS systems, and Development of training modules and providing Customized trainings.

7. ***Communal Services Development Fund Tajikistan***: The Government of Tajikistan adopted plans in 2015 to establishing a Communal Services Development Fund.[25] Careful analysis of the national market circumstances and the capacities of the target beneficiaries (municipalities and service enterprises) led to plan establishment of an initial *G fund* that may move towards *G&L funds* in medium to long term as capacities are developed.

8. ***Municipal Development and Lending Fund:***[26] The Municipal Development and Lending Fund Palestine (MDLF) was established in 2005; it is controlled by an independent Board and has been dominantly funded by multi- and bilateral donors with minor contribution by the Palestine Authority. Although its name includes lending the MDLF has been a grant fund and lending may start in the next medium term. The ten-year history of MDLF shows apparent success, well controlled management, disciplined formula- and performance-based grant distribution, and substantial results in improving municipalities' capacities.

9. The MDLF is a unique and rare example of a performance based grant fund. Many MDFs approach municipalities' performance from a distance and measures a few indicators for reporting progress without integrating results into the grant allocation mechanism. In contrast, the MDLF allocates grants based on a formula: 50% performance, 20% needs and 30% population. The initial performance system includes 16 indicators and 6 ranks (A,B,C,D,E,F); baseline performances were measured when the MDLF started operation. The rank D was the most populous cluster initially with no municipalities ranked to A or B. Entities in E and F category were eligible to receiving only TA grants due to their inabilities to complete development projects. MDLF provides robust capacity building to help municipalities' improvements. The municipalities have climbed up on the "graduation ladder" after annual performance measurements. The MDLF stretched the performance[27] list to 11 levels in 2012 (E, D, C, C+, C++, B, B+, B++, A, A+, A++); the C and the B+ has become the most populous ranks, but there are still no municipalities in (B++, A, A+, or A++) ranks. According to the statute, municipalities with A ranks are eligible for debt financing, thus MDLF has just started preparation for future lending.

GRANT & LOAN Funds

10. The most populous class of municipal funds are G+L funds, which tend to provide a mix of grants and loans, extensive technical assistance, and advanced financial management instruments for local governments; some MDFs also test public-private-partnerships and/or tapping into the markets to expand their resource base. Several G&L funds provide exclusively or dominantly loans, and use market procedures like entity and loan appraisal, and linking lending rates to market references. However, they are best considered part of the G&L cluster, because they operate outside the domestic financial or capital markets. Instead of market sources they use central government funds, own capital (also from

[24] http://pmdfc.punjab.gov.pk
[25] Communal Services Development Fund (ICMA 2015)
[26] The *Municipal Development and Lending Fund* (MDLF) was created by the Council of Ministers Decree No. 32/36/09 dated October 20, 2005 as an autonomous juridical entity to accelerate Palestine's drive toward self-sustained, decentralized, prosperous, and creditworthy local government.
[27] MDLF Progress Report, August 2015; www.mdlf.org.ps

government), and funds from international donors obtained through and guaranteed by the national treasury. The underlying reasons include: a) generally underdeveloped national financial and capital markets; b) the lending terms of the domestic commercial Banks are often much shorter than the lending maturity terms of the G&L funds; c) tapping into the market requires a different business culture and different fund managers, thus incumbents have low interest for changes; and d) G&L funds are exposed to high political risk, as lenders to municipalities.

Examples of Grant & Loan Funds

Grant to Loan Provision

11. The simplest G&L funds look similar to the G funds, since they dominantly distribute state grants, albeit providing a minor volume of loans. The grant funding is typically supply driven with no allocation formula, since the funds implement national or ministries' policies, rather than collecting, scoring, and selecting application from local governments. One lessons learned is that these funds spend long decades in grant allocation; since expansion of lending is a gradual process, as local governments take decades to learn and improve performances, while the development of the domestic financial and capital markets also often takes a long time.

12. ***Bangladesh Municipal Development Fund:*** One example of a less advanced fund is the Bangladesh Municipal Development Fund[28] (BMDF), a company formed under the Ministry of Finance of Bangladesh in 1999. The improvements of local governments' project management and financial reporting are tangible results of the BMDF programs. BMDF mostly provides grants, and only in 2014-15 started preparing a program to scale up lending. This move, however, requires careful assessment of the borrowing entities and investment projects to ensure debt recovery; this assessment also inherently introduces competition across local governments, since selection of project applications should be based on merits, rather than just "needs".

Directed lending

13. G&L funds often fall into the trap of directed lending, when the lending and appraisal procedures are compromised or bypassed by requests from Government entities and thus lending decisions are often political rather than financial. The G&L funds often mimic the corporate structures with a separate management and boards, but their 'independence' is compromised when those boards consist in ex-officio representatives of various ministries with low or nil banking experiences. These boards often become instruments of directed lending, rather than playing the role of setting and enforcing good policies. One unintended result of these is that the loan recovery becomes problematic in the medium term and many new loans are issued to roll over the nonperforming old loans. These practices apparently distort also the municipalities' decisions and incentives, rather than leading them to careful and successful project selection and implementation.

14. ***MDF Tunisia***: The *Caisse de Prets et de Soutien aux Collectivites Locales* (CPSCL) was established in 1975, to channel funds from the Tunisia Department for Local Communities to municipalities, to finance basic infrastructure.[29] CPSCL has since been transformed into a specialized financial institution that provides a combination of loans and grants; lending interest rates have gradually increased to better reflect the cost of funds and municipal capacities have strengthened. However, CPSCL does not have the freedom to approve or reject funding for projects. If an investment project has been listed by the central government Municipal Investment Plan, then CPSLC must approve funding to the

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[28] http://www.bmdf-bd.org/PDPP

[29] *Tunisia Municipal Development Sector Review*, World Bank 2009 (internal document)

municipality regardless of creditworthiness. As a result, debt recovery is often problematic, and thus CPSCL remains unattractive to be a partner of commercial lenders and works as a distributor of funds from government and international donors only.

Loan-Only Funds

15. There are numerous examples when funds are established to provide only loans, either because the founders fixed this policy, or national regulations mandate exclusively lending or ban granting funds from borrowing from international financial institutions. This model is adequate and may work well if the municipalities have sufficient levels of borrowing and project management capacities. Success also requires establishing appraisal rules and procedures that conform to those in the market, developing adequate management capacities, and adopting adequate corporate governance. The latter often appears to be the *Achilles heel* of MDFs that compromises management decisions and the use of the rules.

16. ***The MDF Georgia***: The MDF Georgia has been on-lending IFI loans to a short list of municipalities with good discipline and good loan recovery. The apparent success of the Georgia MDF is accompanied by the fact that only a dozen municipalities are able to borrow under disciplined lending conditions; while the lack of grant funding leaves the less developed municipalities without investment finance. The good performance attracted international donors and the MDF's portfolio expanded in recent years. The Government plans to consolidate various grant funds (social and rural development funds) into the MDF; as a result, combining loan and grant funding to serve also the small and non-creditworthy municipalities have become issues in forming the new MDF business plans in 2015.

17. ***The MDF Nepal***: The MDF Nepal initially provided only loans or loan-grant combinations for municipalities or service entities (water units), based on national public finance rules. With disciplined lending, the MDF grew slowly and was able to reach the better segment of municipalities. Then the MDF became subject to directed lending when the Department of Public Works selected and approved projects and forced the MDF to supplement the grants with loans. The MDF soon faced with non-repayment challenges similar to the CPSCL Tunisia. The MDF adopted a new business plan in 2012, with a new loan-grant policy that provides highly subsidized loans (80% capital grant + 10% loan + 10% borrowers contribution) for environmentally or socially sensitive projects (like water and sanitation for slums), medium subsidy (50% capital grant) loans to regular urban infrastructures (road, water, solid waste), and small (20%) subsidy loans to commercial (revenue generating) projects. Grants can be provided according to the extent of international donor grants to the Government.

18. ***The Iller Bank, Turkey***: The Iller Bank[30] (IB) was founded in 1933 to serve municipalities and provinces. For long decades, IB was working as a revolving fund by lending from its own capital, which was raised from mandatory equity contributions of the local governments and a minor share of Treasury. IB was a non-bank financial intermediary for many decades with no connections to the financial markets. In order to expand lending as the demand growth, the Council of Ministers occasionally authorized increasing the IB's capital. IB was corporatized and registered as a Bank in 2014; integration into the financial market, however, still needs several more years. The IB provided only loans since national policy banned grants to municipalities for decades.

19. The IB policies are in harmony with the decent development of the Turkish municipal sector; municipalities have robust own revenues and surpluses to service debt,[31] but many still fail debt service.

[30] Iller Bank = Provincial Bank

[31] Turkey Urbanization Review, World Bank 2015

The IB also distributes central government transfers; but also it is authorized by law to intercept up to 40% of the transfers if municipalities fail debt service. The intercepts help temporarily but do not prevent failures;[32] rather they seem to reduce IB's pressure for thorough appraisal of lending projects. The IB has been providing small TA grants to small municipalities from its retained earnings; but started providing loan-grant combinations under various Government programs only after 2000. For instance, eligible (small) municipalities apply for loans and are appraised under standard procedures, and then IB disburses the 50% capital grant[33] from the Ministry of Development in parallel with the loan. This is a rule-based and market conform grant mechanism.

20. ***The Cities Village Development Bank, Jordan***: The Cities Village Development Bank (CVDB) was established in 1994 to provide loans to municipalities who are also owners of the CVDB. Regardless of its name, the CVDB has been working as a revolving fund that lends money from its capital with no connections to the domestic financial market. CVDB's policies reflect the assumptions of decent development of the municipal sector; however, the ground reality is that a) a large share of municipalities are small and not creditworthy, b) the loan appraisals are not careful, and c) a substantial shares of borrowers fail in debt service. As a result, loans are often rolled over and municipalities (and indirectly the bank) have been bailed out by central government about once in a decade.

21. The CVDB is a distributor of central government transfers and is authorized to intercept the central government transfers. The mixture of responsibilities in transfer distribution and lending create challenges and the corporate governance structure undermines disciplined lending, and cannot be corrected by the intercepting mechanism. The major issue is that it is unwise to lend money to entities that apparently have no repayment capacities; a grant mechanism would be adequate to this segment of the municipalities. CVDB distributed grants to weak municipalities under a joint *Agence Française de Développement* (AFD) – World Bank program in the 2000-2014 time period.

Advanced L&G funds

22. Many L&G funds that are now advanced started the same level of development as the cases above, and remained for some time outside the financial or capital markets. However, over time, some managed to test or adopt business plans that expanded sourcing from the domestic or even from international capital markets. The cases below show various approaches, different levels of development and successes, and the opportunities to use very different financial instrument in supporting the financing of local public infrastructure. The strong connections to the market are the main characteristics and several funds have proven the ability to fully integrate to the domestic capital markets; these will be discussed in the section of market funds.

23. ***The Tamil Nadu Fund***: The Tamil Nadu Urban Development Fund (TNUDF) was established in 1996 by transforming the former state-owned *Municipal Urban Development Fund* which performed well for 10 years in distributing investment grants from donors, but had poor lending records and no vision about approaching the markets. TNUDF aimed to attract private resources for on-lending to local governments and to support other forms of private co-financing for urban investment projects.[34] This

[32] Intercepting was a popular phenomenon in Latin America in the 1980s, but governments eventually learned that they do not resolve the fundamental problems, rather encourage bad borrowing. Thus, finally intercepting has been banned in Argentine and other countries by introducing the Fiscal Responsibility Act. (Liu-Webb: Laws for fiscal responsibility for subnational discipline: International experience, The World bank 2011).

[33] The SUKAP program supports developing water and sanitation systems in small municipalities with 50% capital grant (Iller Bank Annual report 2012).

[34] Austin Kilroy: Case study: TNUDF, in Municipal Funds, Learning from Experiences – case studies, internal note, Urban Development Center, World Bank, 2011

was a time period when good local governments in India started to scale up and signaled strong demand for investment finances. The TNUDF is managed by a professional company called Tamil Nadu Urban Infrastructure and Financial Services Ltd (TNUIFSL)[35]. Both the Fund and the management company have joint public-private equity ownership: the Government of Tamil Nadu State owns more than 70% of TNUDF's total equity, but holds a minority (49 percent) share of equity in the management company.

24. TNUDF did show apparent success, with f mobilization of funds, in the first five years after establishment. It tested various modern instruments (like poling funds for small water entities with partial guarantees), the disbursement was fast, and the loan recovery was high (over 99%) - in part, because the state government secured recovery by intercepting state transfers and paying TNUDF on behalf of failed borrowers. However, the market situation drastically changed in 2001 and the TNDUF became unattractive to borrowers; first because it failed to compete with falling market interest rates, due to its rigid contracts that fixed high rates for 15-20 years ahead. Second, a new state-owned fund (the "Tamil Nadu Urban Finance & Infrastructure Development Corporation Limited"- TNUFIDC), that provided subsidized loans, rapidly expanded and crowded out the TNUDF. As a result, the TNUDF lending volume dropped and clients rushed for early repayments; thus the primary function of the TNUDF–i.e., to channel private capital–became redundant. TNUDF turned back to channeling donor funds with good market disciplines and flexible rates and has been successful on this field since 2005.

Market Funds

25. The most advanced cluster of MDFs include financial intermediaries that are fully integrated into the financial and capital markets and acquire funding sources largely from private investors: they mobilize funding for infrastructure from the markets by issuing or underwriting bonds, pooling financing, practicing concessional lending, offering guarantees, and using other credit enhancement instruments. This group includes a number of remarkable funds in developing or middle-income countries and dozens of funds in developed countries, especially the USA and CANADA. They require a strong legal and regulatory framework and developed financial markets, as well as defined subsidies; but also credible accounting mechanism, sound financial management systems, full transparency, independent auditing, and performance evaluation of local government services.[36]

26. ***INCA, South Africa***: The Infrastructure Finance Corporation Limited (INCA) was established by private investors/banks in 1996 as a response to the needs for private sector involvement in funding public infrastructure in South Africa. INCA raised funding sources through issuing a series of *INCA bonds* and obtaining long term loans from international donors (EIB, AFDB). INCA soon became the primary private sector investor in municipal infrastructure in South Africa, the prime financier of the largest cities (with lending up to 20 years maturities), and the second largest issuer of corporate bonds.[37] INCA also created a capacity building grant fund for municipalities and trained hundreds of municipal officers in accounting and basic financial skills. It was awarded as the "Best Non-Listed Company in South Africa" in 2002.

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[35] The MDFs discussed above have all simple governance structure where the "fund" is an entity that includes the seed money and the management in the same body. TNUDF offers a rare case among MDFs when the "Fund" as an entity that comprises the money set aside for financing municipal infrastructure and the Fund management are two different bodies; a common practice in private sector development funds.
[36] Planning, Connecting & Financing Cities – Now; World Bank 2013
[37] www.inca.co.za

27. The market situation changed drastically when the state-owned Development Bank of South Africa (DBSA) established and fast expanded a development fund subsidiary to finance municipal infrastructure with a much larger capital and more diversified product list. As a result the INCA's profitability gradually reduced; and in 2009 the shareholders decided to phase out INCA via a portfolio manager company that manages assets and liabilities until their final maturity with audited annual reports and ratings[38]– a very disciplined and market-conform phase-out. The INCA is a rare case where an MDF is phased out after having completed a very important mission. The case also shows that state-owned entities may crowd out the private municipal funds like the case of DBSA and the TNUFIDC in Tamil Nadu.

28. ***FINDETER, Columbia:*** The Financiera del Desarrollo Territorial (FINDETER) was established in 1989 to finance public infrastructure in municipalities, public or private service entities, and regional development, but also to help beneficiaries with various forms of technical assistances. It is a state-owned special financial intermediary that operates under the Ministry of Finance and Public Credit. It is a rare example of an intermediary that supports municipal investments by bridging the supply and demand side of the market, instead of distribution of fiscal resources on behalf of the central government. FINDETER is fully integrated into the financial and capital markets: beyond some initial seed capital, it obtains resources from the market largely by issuing certificates of term deposits (CDT), but also receives funds from international donors under government agreements.

29. FINDETER finances infrastructure projects by channeling resources through authorized financial intermediaries, such as banks, commercial financing companies, and corporations, through *rediscounting* their loan contracts. The intermediaries appraise and approve the loans to the final beneficiaries and rediscount with FINDETER, but they bear the commercial and credit risks. FINDETER analyzes both the projects and the financial intermediaries' rediscount credit application, approves the financing, and then disburses the funds to the intermediaries. The rediscount rates vary across various investment project categories and maturity (up to 15 years), and are published at FINDETER sites, but are generally above 50% of credit margin. FINDETER also manages subsidized programs for priority investments, for which it offers funds with defined discount rates, and options for the intermediaries to add one to four *points* markup (i.e. percentage points), but leaves it to the discretion of the intermediaries to set and agree upon the lending terms with the borrowers.

30. ***LGUGC, Philippines***: Local Government Unit Guarantee Corporation (LGUGC) in the Philippines is a private *credit guarantee institution* established in 1998. It is owned by Philippine private banks with minority shares held by the Asian Development Bank. LGUGC has a counter-guarantee agreement with USAID that substantially expands the LGUGC's guarantee capacity. Primary and secondary cities, public utilities, tourism and housing cooperatives, and universities and colleges are the main clients of the LGUGC. They borrow directly form the market entities on free market conditions or issue bonds but enhance debt by LGUGC guarantee, for which they pay a two percentage point fee. Loans are guaranteed up to 85% and bonds up to 100% of principal and interest with an interest rate cap. LGUGC's credit risk mitigation actions include collateral assigned on project revenues and assets or attached to the monthly gross revenues of the borrower. In addition, borrowers need to obtain credit insurance from an accredited insurance company and an acceptable credit rating determined by the LGUGC. This is again a case when the beneficiaries are fully reliant on markets, appraised by private creditor entities, and financed from private funds; the LGUGC is, however, a key facilitator that allocates risks according to clear market conditions and this way expands borrowing capacities.

[38] INCA Annual Report 2014

31. ***Municipal Bond Funds, USA:*** *Municipal Bond Funds* are very popular entities in the USA that mobilize largely private investors as mutual funds, invest in municipal bonds, and that way finances municipalities' infrastructure investments. *Bond banks* serve cities, municipalities, schools, hospitals, or water and sewer districts. They are able to provide lower-cost financing since they have higher credit ratings than the borrowing entities. There are three motivations for investors: i) municipal bond are exempt from federal taxes and often from state taxes too, thus provide higher yields even with lower interest rates; ii) Investors are reluctant to invest directly in municipal securities, but feel safer to invest in diversified portfolios and bonds issued by a larger entities with significant resources; iii) The liquidity (easy to buy and sell) is also a key motivation. For example, the New York municipal bond exchange-traded funds (ETFs) provide investors with access to the New York municipal bond market and offer steady monthly incomes that are tax-free.

32. ***Urban Development Funds, USA***: Urban Development funds (UDFs) mobilize private savings and tap into various Government subsidies to finance various public investments; including social housing, multi-family housing, community developments, or hotels. Among these the most famous is the New Markets Tax Credits (NMTCs) offered by the Federal Tax Authority (IRS) annually to support socially important developments. The UDFs apply annually for NMTCs with project proposals, and implement projects if the IRS awards the NMTC. A few examples of supported projects in 2015:

- ***The Florida Community Loan Fund*** - which builds hundreds of affordable rental homes every year in Florida, with support from new-market tax credit and subsidies obtained from Florida State;
- ***Aries Capital UDF, Chicago*** – which finances hotels and multi-family homes/complexes also from NMTCs.
- ***Committed Affordable Units (CAFs) in Arlington County, Virginia, USA***: CAFs represent nearly 15 % of the rental apartments in the county; CFAs are housing units in apartment complexes that are guaranteed by agreement with the federal, state, or County Government, or through tax-exempt financing, to remain affordable to low and moderate income households for a specified period of time; generally 30 to 60 years. Rents in most cases are affordable to households earning 60% or less of the Area Median Income. The Department of Housing and Urban Development (HUD) estimates median family incomes each year, and these determine eligibility limits for affordable housing units.

33. ***Housing Associations in Holland***: Building Associations are the prime developers of social (affordable) housing in Holland. They are eligible for obtaining state subsidies with the approval of the local governments. They became so popular that about 54% of total housing were rentals and 40% of total housing were social housing in Holland by the mid of 1990[39]. In fact many social housing units have become mixed communities, because substantial share of households have grown out form the subsidized income categories, but they are eligible to remain in the dwellings obtained before. Recent discussions try addressing these issues and seek options to encourage high-income dwellers to move, inter alia, by incentivizing them with higher rental fees[40].

[39] The Housing Act of 1902 directs the local governments to recognize the Housing Associations and qualify them for state subsidies, but also to adopt and revise every ten years expansion (zoning) plans to provide space for housing development. (Dolata 2008, page 4).

[40] Elizabeth Austerberry: Netherlands follows Britain's lead on social housing (The Guardian , Friday 21 June 2013)

Lessons learned

34. The analysis and the cases presented above suggest the following lessons:

- MDFs play a very substantial role in financing local public infrastructure and supplementing the funds channeled to municipalities through the fiscal systems;
- Tailoring the fund to the national circumstances and conforming to the municipalities' level of development is vital. A simple fund can play a better role than an overly ambitious one;
- Funds that combine loans and grants are well tested and show apparent success with a gradual expansion of lending; but they require good financial management capacities of the funds, high market discipline, and technical assistance to improve capacities of the borrowers;
- There are excellent market-based MDFs, while others rightly show very slow movement towards markets and spend decades distributing grants; premature attempts to lend money to unprepared municipalities are counter-productive;
- MDFs in developing countries often adopt corporate governance structures from the developed countries, but compromise good governance and thus lending under political or bureaucratic influence.

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