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PENN: CURRENT RESEARCH ON SUSTAINABLE URBAN DEVELOPMENT

# Housing Challenges and the New Urban Agenda

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MARCH 2018



## INTRODUCTION

In October 2016 national and city leaders, multilateral, unilateral and NGO representatives, academics and private sector leaders gathered at the Habitat III conference in Quito to endorse the New Urban Agenda, which sets a new global standard for sustainable urban development and guidelines for global efforts to achieve the Sustainable Development Goals in an era defined by climate change.

In February 2018, many of the same representatives convened again to discuss “Cities 2030. Cities for All: Implementing the New Urban Agenda” at the 9<sup>th</sup> World Urban Forum in Kuala Lumpur. This white paper is a contribution to the World Urban Forum series sponsored by the Penn Institute for Urban Research and the Perry World House of the University of Pennsylvania presented for discussion at the World Urban Forum.

Shelter is a necessity of life and an anchor of economic activities by households. Availability of affordable housing with access to transport, jobs, and necessary public services for health and safety, is a prerequisite for inclusive and diverse cities. Housing is the most important asset for the majority of households and homeownership is key for building wealth. Housing is also the anchoring component in the construction and expansion of cities and the main driver that catalyzes sustainable and resilient territorial development through land-use, infrastructure and transport sectors. Location of housing relative to employment and other service centers has a direct implication for transport and mobility, and hence energy consumption and greenhouse gas emission. The siting and design of dwellings affect their vulnerability to natural disasters. In other words, housing policies and interventions are an integral part of a holistic vision of urban areas contributing to inclusion, resilience and sustainability.

But, housing cannot be viewed in isolation. There is an interlinked triangle of land use, transit and housing to provide access to job markets. Housing in good locations is expensive and land is most sought after and expensive where there is access to plentiful jobs. In locations accessible to jobs, the cost of housing is higher, which is made worse by an inadequate provision of developable land caused by natural and man-made scarcity due to regulations. Hence simple policy solutions of building affordable housing wherever it can be done at low cost will not be effective.

In light of the importance of housing, the New Urban Agenda recognizes the need for adequate and affordable housing within the framework of sustainable urban development. The New Urban Agenda provides an opportunity to achieve the overarching Sustainable Development Goals, including Goal 1, which calls for an eradication of extreme poverty by 2030 (currently measured as people living on less than \$1.25 per day) and goal 11, which calls for access to adequate housing and basic services and the upgrading of slums.

The challenge is how to implement the recommendations of the New Urban Agenda. This is not the first effort to address the global housing agenda, as an earlier attempt, Habitat II, did in fact lay out many of the requirements for progress in this sector. However, the extent to which housing achievements were reached was never clearly identified. To make a real difference this time, we need clarifying principles, better strategies and measurable outcomes. The NUA document's implementation guidance can be improved. The document provides a list of principles and anticipated outcomes but lacks an implementable vision that can bring all parts together and inspire action across and within sectors to achieve the “provision of affordable housing options with access to quality basic services and public spaces for all.”

A major gap in the vision is the absence of discussion of financing. No meaningful discussion of the implementation of the housing component of the New Urban Agenda is possible without reference to housing finance. Since housing finance is an integral component of the financial system, the linkages to the financial sector and capital markets are essential. Also, implementable strategies should specify who will do what and by what means. In this regard, the division of responsibilities between markets and government, and among the different layers of government needs to be identified.

This paper will elaborate the housing component of the NUA and suggest ways to ensure its effective implementation. The rest of this paper is organized as follows: Section 2 looks at the structure of the housing component of the New Urban Agenda. It compares the NUA with the Habitat Agenda from the Habitat II Conference in 1996 and explains how housing inequality is an even greater challenge for the implementation of the NUA than it was 20 years ago. Section 3 provides guiding principles for achieving the goal of adequate housing for all through an integrated approach of urban management and land use mechanisms, expanded access to housing finance and subsidy programs. Section 4 discusses how effective implementation of the housing component of the NUA can be strengthened with systematic data collection and analysis using indicators. Section 5 concludes the paper.

## HOUSING IN THE NEW URBAN AGENDA

### COMPARING THE HABITAT AGENDA OF 1996 AND THE NEW URBAN AGENDA OF 2016

In order to put into historical perspective the way housing is treated in the New Urban Agenda (NUA hereafter), it is useful to revisit the Habitat Agenda (HA hereafter) adopted at the Second United Nations Conference on Human Settlements (Habitat II) held in Istanbul in 1996 and compare its housing component with that in the NUA of 2016. This comparison demonstrates housing is not a central to the NUA as it was to the HA.

One notable difference in the structure of the two documents is the amount of space devoted to and the details of discussion of housing. The words 'housing' and 'shelter' appeared 128 times and 207 times, respectively in HA, but 46 times and only once, respectively, in NUA. This is a marked difference even considering that the former was a much longer document. As for a more specific discussion of housing and housing policies, the terms 'finance', 'housing finance', and 'mortgage', and the words housing market are scarcely mentioned in the NUA unlike in the HA. The results of the simple word counting exercise reveal that the housing component is not as much at the center stage in NUA as it was in HA. A major reason for this was the formal treatment of the topic, housing. "Adequate shelter for all" and "sustainable human settlements development in an urbanizing world" were considered "two themes of equal global importance" in Habitat II. On the other hand, the NUA focuses on cities and treats housing as part of broad urban planning strategies. To be more specific, the NUA includes the following language: "*We will support the implementation of urban planning strategies, as appropriate, that facilitate a social mix through the provision of affordable housing options with access to quality basic services and public spaces for all, enhancing safety and security and favouring social and intergenerational interaction and the appreciation of diversity.*"

The Action Framework for Implementation of the NUA (UN Habitat 2017) refers to the UN Habitat position paper *Housing at the Centre of the New Urban Agenda* and states: "Implementing the principles of *Housing at the Centre of the New Urban Agenda* can help relate adequate and affordable housing strategies and interventions with inclusive land use that supports integrated socioeconomic groups, promote investments in infrastructure and provide proximity and equitable access to employment, services, facilities and transport." This framework views access to housing and mobility as a bundle, and while this appropriately emphasizes the importance of promoting the provision of housing in locations accessible to jobs and other facilities it leaves out many other critical aspects of the housing agenda. It further explains the placement of affordable housing solely under the responsibility of local urban planning authorities.

In defining the scope of government intervention, the Habitat Agenda explicitly recognized markets as the primary housing delivery mechanism and highlighted the importance of the role of government, both central and local, in creating an enabling framework for a well-functioning housing market to ensure housing delivery. HA also called for government actions to improve the effectiveness of existing housing finance systems in order to

mobilize more resources for housing finance and extend credit to more households, and to create new housing finance mechanisms as necessary to address the financial needs of people with limited or no access to credit. Such functions are typically in the realm of central government entities. There is little discussion of such division of responsibilities in the NUA.

This is not to say that the division of responsibilities laid out in HA was implemented to produce successful outcomes. The “Enabling Strategy” was prepared at a time of euphoria about the power of markets. Housing was considered a private good that could be supplied by the private sector pure and simple and upgrading and community-based approaches were to address the housing problems of the poor. The emphasis on the enabling role of government, and the lack of detail on the roles of local and national governments, was misinterpreted by some countries to the extent of being neglected, especially in the case of local government.

The NUA provides another opportunity to address the need for affordable housing and to overcome housing inequality. UN Habitat did prepare an “Action Framework for the Implementation of the NUA (AFINUA)”, which breaks down the content of the NUA into 15 categories, including “*Financing Urbanization*” and “*Housing and Slum Upgrading*,” and lists all relevant articles of the NUA under each category. It further outlines specific implementation categories for the NUA; 1) national urban policies, 2) urban legislation, rules and regulation, 3) urban planning and design, 4) urban economy and municipal finance, and 5) local implementation. While these documents make it easier to embrace the various components of the NUA, the same texts of the main NUA document are used and a coherent vision is therefore still missing.

Moreover, the AFINUA identifies only local government entities as implementing institutions for housing. This reveals a lack of acknowledgement or understanding of the complementary roles of markets, central and local public sectors, and NGOs in the development of inclusive, innovative and sustainable housing solutions.

This complementarity is particularly important in the role housing finance has to play in implementing the housing agenda. Without access to finance, markets cannot deliver housing and most households have no choice other than to construct or improve their house over a very long time. Yet, NUA makes few references to financing in general and housing finance in particular. The one paragraph dealing with housing finance in the NUA shows up under Financing Urbanization and not under the Housing and Slum Upgrading category in AFINUA, and housing finance is discussed but misplaced under the heading of ‘Help local authorities understand and adapt their respective economic development policies, mechanisms and financing models to a wide range of housing options...’.

## HOUSING CHALLENGES AND THE NEW URBAN AGENDA

The housing sector, and the associated services and infrastructure, is central to the process of urbanization, both from an equity perspective and as a critical investment sector for the provision of shelter. Housing is the single largest form of fixed capital investment in most economies and the single largest asset owned by most households. Housing expenditures generally comprise the largest part of household spending.

Housing investment as a share of GDP, however, has not kept pace with urbanization in many developing countries. A recent study by the World Bank confirms that housing investment as a percentage of GDP, by public and private sectors and including both formal and informal structures, lags behind what is needed to accommodate urbanization in low- and lower-middle income countries (Dasgupta, Lall, Lazano-Garcia, 2014). Low levels of investment in housing are partly due to the lower levels of per capita income at which urbanization is occurring (Glaeser, 2013) and a growing income inequality in many countries. The outcome is a persistent increase in informal housing in low- and lower-middle income countries and a growing housing inequality. Informal housing puts a heavy burden on infrastructure provision, transport systems and the environment, and limits the building of housing assets (or wealth) by lower income households.

Overall, economic inequality within countries is also growing, and this is well recognized; less understood is its relation to the housing sector. There has been a new recognition of the inequality in the distribution of income between labor and capital. In *Capital in the 21<sup>st</sup> Century* (2014), Piketty argues that the share of capital income as a percentage of total income in the major advanced economies has been rising in recent decades, worsening income distribution in these economies. Although Piketty himself did not recognize the point, Rognlie (2015) demonstrates that the long-term rise in the share of capital income consisted exclusively of the rise in the return on housing, whereas the rate of return on non-housing capital has remained stable. One of the reasons for the share of income from housing to increase is that housing in many markets became scarce, which in turn led to house-price appreciation to offset the decrease in the quantity of housing capital. A further analysis by La Cava (2016) reveals that the increase in income from housing accrued disproportionately to homeowners and that supply constraints played an important role to make housing scarce in the U.S. The rise in housing's share of capital income may have implications for intergenerational inequality in income and wealth through transfers across generations.

Indeed, housing plays a critical role in compounding intergenerational inequality due to its inextricable link to social mobility (Acolin and Wachter, 2017). At the local level, housing defines a household's access to job opportunities and amenities, including both public and private goods and services. Because education and employment opportunities are locationally dependent, housing can have a positive or debilitating impact on intergenerational mobility. Since location fundamentally determines the dispersion and accessibility of these opportunities, the value of land reflects the desirability of a particular location within an urban system. Because locational desirability is priced into real estate, access to such favorable conditions has disproportionately favored households of adequate financial means. The result is a feedback loop in which low-income households are priced out of the very areas that provide the necessary factors for upward social mobility. This heightens the economic and physical divide in urban areas, as only skilled, high-wage workers can gain entry to such markets and enjoy the benefits of house-price appreciation.

Particularly prevalent is the adverse effect of housing exclusivity on young people, who fall victim to the aforementioned feedback loop due to stagnant wages and rising housing costs. In some developed countries, the impact of this price exclusion is reflected by the historically low and continually falling rate of homeownership among young households (Acolin, Goodman, and Wachter, 2017). Housing is indeed situated at the core of this widening wealth and income gap, as rising rents and home prices restrict the upward mobility of existing populations and limit opportunities for new entrants into flourishing housing markets.

In developing countries, housing inequality is an even more severe problem. As noted, insufficient public and private investments in housing in the face of rapid urbanization over the years has resulted in the development of crowded informal settlements, sometimes in vulnerable areas, often without title or ownership rights. Ownership rights become a problem as house prices increase with economic development. The potential is for the creation of a have-not class of urban dwellers who do not benefit from rising house prices. The UN estimates that over 1 billion people live in inadequate housing, in places which lack access to basic infrastructure (transportation, electricity, water, sanitation), urban services (education, health) and public space (space for parks and community facilities such as schools, health care centers) with negative consequences for human development. Going forward, the UN estimates that there will be 2.5 billion **new urban** dwellers by 2050 (UN 2014). Without sufficient public and private investment in housing, many of the new residents will end up living in substandard conditions. This is why the effective implementation of SDG 11, which calls for access to adequate housing and basic services and the upgrading of slums, and the housing component of the NUA are imperative, and why housing policy and its implementation must be a focal point in the NUA.

## PRINCIPLES AND IMPLEMENTATION STRATEGIES FOR AFFORDABLE HOUSING FOR ALL

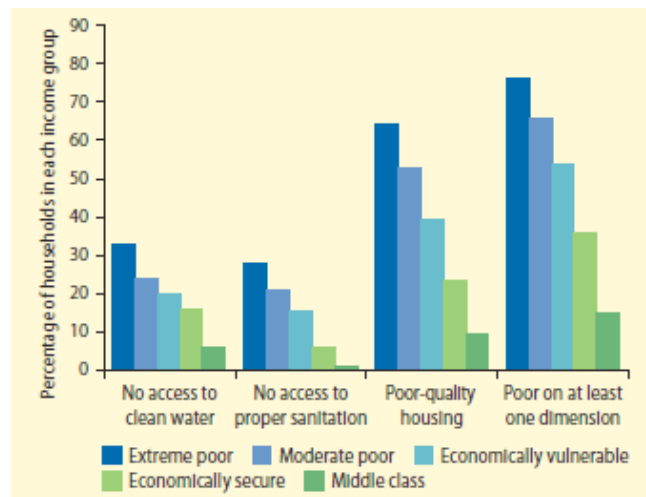
Achieving the goal of adequate and affordable housing requires clear guiding principles and effective implementation mechanisms. This section lays out the principles regarding key components of policies that will contribute to the fulfillment of this goal. We identify an integrated approach that comprises housing supply, housing finance, and subsidies.

### AFFORDABLE HOUSING SUPPLY AND URBAN INFRASTRUCTURE PROVISION

Affordability of a house is determined by housing prices, the cost of finance and household income. Since a household can spend a limited share of its income, say 30 to 50 %, on housing, both the cost of financing and the cost of the house itself are important for affordability. The cost of a house consists of building costs and serviced land costs. The former depends on wages and building materials and techniques and tends to be lower in developing economies. The latter depends on the supply of developable land and transport to provide access to jobs. The cost of infrastructure in turn depends on the nationally determined costs of capital, labor and materials. The provision of serviced and developable land is the responsibility of both central and local governments with a complementary role of the private sector.

In many low-and middle-income countries, housing provided in the formal sector is unaffordable for the majority of households. Poor quality of housing is a problem not just for the poor but for a much larger proportion of the urban population. According to a recent report by the World Bank on poverty in East Asia and the Pacific (2018), poor quality housing affects 75% of the extreme poor as an indicator of non-monetary poverty, perhaps as expected, but also a full quarter of the economically secure population in selected countries. These figures are considerably larger in Sub-Saharan Africa.

### NON-MONETARY POVERTY BY CLASS, 2012



Source: Wai-Poi and others 2016.

Note: Access to clean water denotes piped water, a protected well, or water sold by a vendor. Access to proper sanitation denotes a flush toilet or an improved pit latrine. Good housing quality means the roof is concrete, cement, brick, stone, wood, or tiles; the walls are concrete, cement, brick, or stone; the floor is nonsoil. The sample includes Cambodia, Indonesia, Lao PDR, Mongolia, the Philippines, Thailand, and Vietnam.

Government policies, both at the national and local levels, are critical to the efficient functioning of the supply side of the market. The NUA correctly focuses on the important role of governments in land management, the provision of trunk infrastructure for residential and other developments, the reform of restrictive planning

and building regulations including cumbersome permit procedures that have proven to increase local house price-to-income ratios (Fischel, 1995; Hilber and Vermeulen, 2016; Glaeser and Gyourko, 2008, 2017) as well as the potential for the application of innovative construction methods for housing. While land management and planning are mostly local government responsibilities, national governments have extensive powers of taxation over land and own large urban landholdings in urban areas in some developing countries. The role of national urban policy in setting up incentives and financial capacity to deploy this land locally is lacking. Rather national, state and local regulations are imposed that restrict the availability of land for development (and that informal housing settlements violate).

In addition, urban infrastructure investment is extremely inadequate in most developing countries, which often forces private developers to provide bulk and trunk infrastructure services. The developers pass these costs on to consumers in the price of the house, while governments would be able to recover the cost of infrastructure investment over much longer periods through user fees, property taxes and other financing mechanisms. Governments are in a better position to develop different types of financial instruments for infrastructure provision through both the public and the private sector. Land value capture and land sale are some such instruments. With the enabling of land value capture mechanisms, the availability of such land can lead to incentives for local governments to provide and finance the provision of infrastructure and well serviced developable land.

Since public investments such as the provision of transportation infrastructure can increase land values for private landowners, they can be financed by capturing the differential value of non-serviced and serviced land, from private sector developers through various mechanisms. Land value capture can generate private investment targeted to affordable housing provision and the infrastructure that will link the affordable housing to jobs. For this to happen, municipalities need the authority, incentive, and capacity to plan for and finance pro-poor development and redevelopment. This is at the heart of the subsidiarity principle advocated by the NUA to assign the governance task to the right level of government (UN 2017). Municipalities can deploy local planning and land-value capture mechanisms to finance inclusive and sustainable projects for housing and infrastructure and entice private developers to come into the affordable market, assemble land and develop and sell housing units.

Municipalities can also operate as pro-poor developers or redevelopers themselves and capture gains by using public land or buying private land at pre-development values while selling publicly serviced land at a price that incorporates the cost and value of providing infrastructure. Alternatively, municipalities can continue to own the land and charge for the infrastructure costs or establish a property tax for this purpose. Since investment in capital improvements to land can synergistically generate capital investment in other nearby locations, which further increases land value, it is important for municipalities to put these mechanisms in place over a large area. To do this, joint development (or redevelopment) or infrastructure impact fees or special assessment in improvement districts can be used. Localities where property taxes already exist, can use tax increment financing. The key is to enable municipalities to capture the gains from the provision of infrastructure and to do so for the housing of those who cannot afford privately supplied housing.

## **AFFORDABLE HOUSING FINANCE**

Access to affordable housing finance is crucial for facilitating home purchases. Housing is too expensive relative to incomes of all but the highest income groups to be paid for from income or savings. Developers in turn build houses only for those who can pay cash or have access to credit.

Affordability of housing finance can be defined in terms of the debt service to income ratio (DTI), which is equal to the mortgage interest rate times the size of the loan divided by the income of the borrower. It can be expressed as the product of three components; the mortgage interest rate, the house price to income ratio

(PIR) and the ratio between the loan amount and the house price - the loan-to-value ratio (LTV). In other words, housing (finance) becomes more affordable the lower the interest rate and the PIR, given the LTV set by the mortgage lender.

The mortgage interest rate is determined by the cost of funds as well as the efficiency of the mortgage industry. The cost of funds in turn is determined by the interplay of savings, domestic and foreign, and investment. It is also influenced by monetary policy conducted by the central bank, and by fiscal policy since the government deficit affects the market interest rate. Sound monetary and fiscal policies will help keep inflation and nominal interest rates at low levels, and hence lead to low interest rates on mortgage loans. In fact, price stability is a prerequisite for a well-functioning mortgage market.

The interest rate and overall cost of mortgage lending can be lowered also by improving risk management and origination and servicing procedures by lenders, utilizing innovative technology, lowering taxes on financial products and other transaction costs, and by making the mortgage industry more competitive. For example, a large margin between the mortgage lending rate and the cost of funds can be sustained only if the mortgage market is not exposed to competition. Yet another way to lower the mortgage lending rate is to tap the capital markets to mobilize funds, possibly at a lower cost, and to improve lenders' ability to manage financial risks imbedded in long-term mortgage lending. Securitization of mortgages, the issuance of mortgage bonds or the use of liquidity facilities as capital market intermediaries are examples of the use of capital markets for mortgage funding. However, the secondary mortgage market cannot work without a well-functioning primary mortgage market.

There are many countries where government subsidizes mortgage interest to make housing finance more affordable. But often times, interest subsidies are provided to compensate for poor monetary and fiscal policies or an inefficient mortgage industry. Such subsidies exacerbate inefficiencies and hinder the expansion of sustainable housing finance. They are neither transparent nor equitable. The ministry in charge of conventional housing policy needs to work closely with the central bank and the finance ministry in order to lower and stabilize the country's interest rates and agree on an equitable and efficient subsidy regime for housing finance or housing directly.

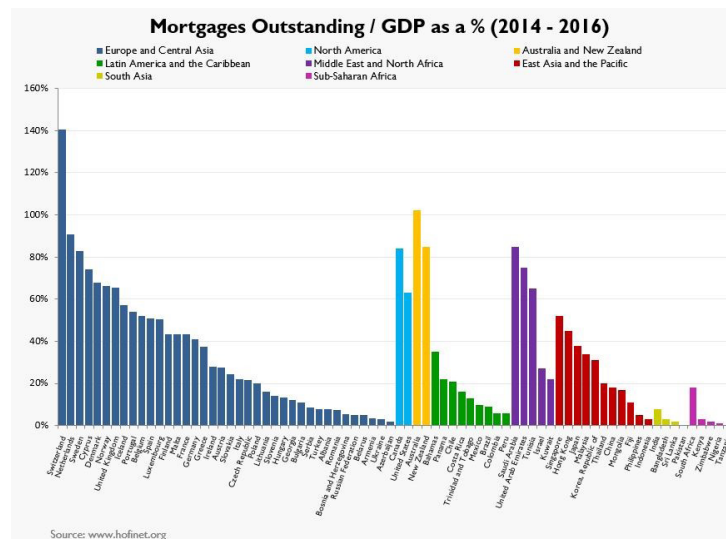
The discussion of the terms of housing finance is conditional upon a large proportion of the population having access to credit in the first place. Broad access requires that fundamental building blocks are in place for credit markets to function, including a trusted property rights and property registration system, a legal and regulatory framework to facilitate the functioning of housing finance systems and the enforcement of mortgage laws, availability of credit and housing market information, and willingness by lenders to serve creditworthy low-income households or make small loans.<sup>1</sup> The absence of above-mentioned requirements is the reason that mortgage markets are still very small in many developing countries as a percentage of GDP and do not reach the low income groups or those who are informally employed.

Although governments need to make housing finance more affordable along the lines discussed above, there is a limit to what can be done on the finance side if housing itself is not affordable. If housing demand increases due to rising incomes, improved macroeconomic fundamentals, or financial system expansion, while land management and supply of other inputs in the housing market lags behind, extreme land and house-price increases may result. The low-income and informal market is particularly vulnerable under these circumstances since the market will apply resources first to higher income segments and because informal housing dwellers lack property rights. In sum, access to finance and housing are necessarily interlinked because expansion of housing finance will have the desired effects only if the supply side of housing market works efficiently.

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<sup>1</sup> Microfinance for housing can offer an alternative source of credit. However, microfinance has been unable to reach the required scale to finance home purchases for these segments of the population. Some promising cases, particularly from Latin American countries show the possibility of using microfinance for individual home construction and improvement, as well as experimentation in the granting of property rights. (Birch, Chattaraj, and Wachter. 2016).





## HOUSING SUBSIDIES

It is not uncommon, even in middle-income countries, that half to two-thirds of households who enter the housing market each year are unable to acquire a house in the formal housing market and cannot obtain a housing loan. This is without taking into account the large proportion of households in established cities that have inadequate shelter, particularly in urban areas of developing countries. No government can solve the housing problems of such a large segment of the urban population by itself. Therefore, any pro-poor housing policy aimed at improving housing quality and increasing housing consumption of its population must include measures to ensure that as many underserved households as possible will be able to buy, build, or rent a house in the private formal housing market. This may, initially, require government support to housing market institutions and agents, particularly to improve access to mortgage finance. In addition, there may be a role for relatively small down-payment *subsidies to improve access to mortgages for households at the margin of the mortgage market depending on the stage of development and the capacity of government to tax for such funds. Expanding access to credit markets to low/middle income households will free up scarce government resources and will allow governments to devote the bulk of their fiscal allocation to assist the truly disadvantaged for whom formal housing markets will not work yet and for whom different types of subsidies are needed in the form of various rental and ownership housing programs.*

*Government subsidy policy must therefore look at the entire range of underserved urban households and provide efficient and equitable incentives and subsidy packages to each segment, both for rental and ownership housing. If subsidies are targeted exclusively at the extreme poor, for example by building new low-cost housing or rebuilding slum areas, misallocation is nearly unavoidable since a large proportion of the urban population has no access to formal housing markets. Similarly, if subsidy programs focus only on middle income segments, for example through mortgage-linked subsidies, it is very unlikely that positive housing outcomes will ultimately trickle down to the poor. The scale of urbanization, patterns of income inequality and the lack of access to housing finance by the urban poor would prevent such positive outcomes.*

In many, if not most, countries, housing subsidies are disproportionately focused on the middle-income segment of the market and linked to mortgage lending through subsidized interest rates (through provident funds or government housing finance institutions), caps on interest rates and tax advantages to mortgage interest payments and the like. Such subsidies are often *inefficient*—they are costly, discourage primary mortgage market lenders from expanding mortgage credit, and prevent the leveraging of the mortgage portfolio through capital markets. Most such subsidies are also *inequitable* because they increase with the size of the loan and disproportionately benefit higher income groups. In developing countries, such finance-linked subsidies are

frequently complemented by deep supply-side subsidies to land and infrastructure because of inefficiencies in those sectors. This increases the total subsidy amount required per household and hence limits the number of households that can be served with a given budget.

In order to expand formal housing supply gradually to lower middle- income groups, therefore, the governments must give the highest priority to improving the legal and regulatory framework for mortgage markets to work. The national housing ministry must collaborate closely with the finance ministry in order to reform housing subsidy policy discussed above. Countries that have gone through such subsidy reforms, such as Thailand, Korea, Chile, and countries in the midst of such reform such as, India, Indonesia and Egypt have seen access to housing credit and formal housing markets increase in scale and depth. A more promising approach would be to coordinate national government subsidies with local government inputs in making suitably located land available and facilitating appropriate land use to ensure that subsidized housing for rental or ownership can better serve the social and employment needs of low income households.

The lowest income segment and the informally employed, for whom formal land and housing markets are not yet accessible, require other types of support to improve their housing conditions. In rapidly urbanizing developing countries, this segment of the population is currently most dependent on the informal housing market.

Housing policies and subsidies for the poor need to focus on both new construction of affordable houses, whether for rent or for ownership, and the improvement or re-building of existing informal or slum areas. Because of urban demographics in developing countries, new construction must be given a high priority to prevent further growth of informal areas with all related negative social and health externalities. The difficulty is, however, that new construction is expensive, made worse by costly and constraining regulations, and, in the case of rental housing, unfavorable rent laws and tax systems. The first priority for national and local governments is to address these regulatory and tax constraints. Experience has shown that government interventions to incentivize private developers to build affordable housing through deep demand subsidies to households (South Africa even gives such houses for free) may backfire. Developers will seek out cheap peripheral lands to make these housing developments profitable, compromising on access to employment, transport and other amenities. This leads to vacancies, loan defaults and social instability. Mexico, Brazil, South Africa, and Egypt are among the countries that have experienced such outcomes (Hoek-Smit 2016; Acolin, Hoek-Smit, Magalhaes Eloy, 2018 forthcoming).

The second approach to low-income housing subsidies is through upgrading of infrastructure in existing slum areas and possibly titling of land in existing informal settlements, or the provision of grants for specific home-improvement projects such as the construction of cement floors.<sup>2</sup> Similarly, the on-site building of new housing to resettle occupants of informal housing, has produced some positive outcomes. It is, however, relatively costly, depending on the land costs, and it has proven difficult to resettle all inhabitants of a slum area and to establish whether owners or their tenants are the qualifying beneficiaries.

Markets may not be able to deliver affordable housing without subsidies or support to financing. Furthermore, housing benefits or allowances can serve as effective mechanisms to provide affordable housing to low-income communities in countries with an efficient housing market.

<sup>2</sup> Social and health impacts of upgrading projects are well documented. An example of a successful grant program for home-improvement that does not require the household to take out a micro loan is the Piso Firme Program in Mexico. The program provided small grants that allowed beneficiaries to build a cement floor in their houses, irrespective of where the house was located. An evaluation, using an experimental design with control groups, showed a positive impact of the program on households' wellbeing.

In summary, both national and local governments must take the lead in subsidizing this segment of the market and need to coordinate their efforts closely in order to respond to the most urgent types of housing problems in different localities. A flexible *national housing-grant system* that allows local governments to set their own priorities on housing subsidy programs within national guidelines, is preferred over standardized national programs. This approach requires competent local governments. It would be ideal if local governments are able to raise local funds for infrastructure and affordable housing to complement national programs.

The monitoring and evaluation of subsidy programs should be built into the design of subsidy programs. Measuring of outcomes, reporting of results and costs, and processes to adjust programs should be made a standard practice. Particular attention should be paid to process evaluation, especially when private sector or NGO/community organizations administer government subsidy programs. The following section discusses the need for monitoring more generally.

## MONITORING THE IMPLEMENTATION OF THE NEW URBAN AGENDA

The ultimate goal of implementing the NUA is to make cities inclusive, safe, resilient and sustainable. The New Urban Agenda is supposed to guide urban policies for the next 20 years and intermediate achievements and challenges of the NUA are to be reviewed in 2026. In light of this timeline, we need a sound mechanism for monitoring progress and identifying gaps with respect to specific goals and targets. It is important to establish national and global progress measurements toward the housing goals.

As in the NUA monitoring process in general, there are several practical questions regarding the monitoring of process in housing. What quantitative and qualitative measures should be put in place to measure the success of housing goals? How should commitments and goals be monitored, not just nationally but globally? Is there an agreement on standardized global outcome indicators? Who should monitor? How can monitoring efforts go beyond assessment exercises, increase accountability, and feed back into policy debates and discussions at the local level? Finally, how can alternative and innovative types of data complement government statistics?

The most important requirement is good data at the national and local levels. This is especially true for the housing component of the NUA. A well-functioning housing market requires timely information on demand and supply characteristics. Such information must include data on house prices, rents and incomes, housing finance and subsidy programs, the quantity and quality of the housing stock by housing type, building permit applications and approvals, construction costs, the volume and the value of new construction, housing transactions, etc. Some of these data are local and have to be combined at the national level and some, such as housing finance and subsidy data, are national in nature.

Such housing sector data are crucial for decision making by market players as well as for various policy-makers, from the central bank dealing with monetary policy and macro-prudential policies and other financial stability issues linked to the housing sector, to Ministries of Housing and Construction which set production targets, develop and administer household subsidy programs and private sector production incentives, and local governments which must ultimately guide and integrate land, transportation and housing development in their jurisdictions. Monitoring of the housing sector is impossible without data. Comprehensive housing sector data are not systematically collected or compiled and distributed at national level in many countries, specifically in emerging markets and developing countries. And even in OECD countries housing data are often not standardized or widely shared.

Over the past few decades, international efforts have been made to assist countries in putting in place a system of housing data collection, and to do so in a globally standardized way to allow for international comparisons and analysis of housing sector conditions. The joint UN Centre for Human Settlements and World Bank "Housing

and Urban Indicator Program” of the mid 1990s, which was meant to be rolled out at a large scale at the 1996 Habitat II Conference, was the most comprehensive global attempt to achieve broad national and global coverage of the urban and housing sectors. Its implementation has suffered from lack of resources, however. Besides, indicators on housing finance were not included. Several other smaller attempts by IADB and Habitat for Humanity suffered the same fate.

The recognition of the need for a standardized set of indicators for the implementation and monitoring of both the Millennium Development Goals (MDGs) and the Sustainable Development Goals (SDGs) led to the adoption of a total of 60 indicators for the former and 230 indicators for the latter. But there were only a few indicators related to urban development and housing. MDG Target 7D says “By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers”, and the indicator for monitoring progress is 7.10 ‘Proportion of urban population living in slums’<sup>3</sup>. A similar SDG indicator is the famous #11, which is measured as “By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums” (UN ECOSOC 2016), and “Proportion of urban population living in slums, informal settlements or inadequate housing”.

The fact that almost identical indicators were included in MDG, SDG and NUA suggests that the lack of adequate shelter with basic services in slums and informal settlements is recognized as a continued challenge. But the target itself is not specific and hence it is unclear how the indicator will be used to make a judgement. The other SDG #11 indicator related to housing is “Ratio of land consumption rate to population growth rate”, which measures if per capita land consumption keeps pace with urbanization but does not account for increased densification. While national databases are necessary, the information for monitoring housing outcomes will necessarily be local. There are now new methods for tracking informal housing using remotely sensed data. Integrating these data operations with local information is important to learn where progress is occurring and to learn from the exemplars of this progress for others.

Data collection on the housing and housing finance sector, has received renewed attention since the Global Financial Crisis. IMF, BIS, and the World Bank are assisting countries to develop House Price Indices.<sup>4</sup> There are other initiatives led by the United Nations as well as the academic and research communities.<sup>5</sup> These data efforts need to be strengthened.

In summary, a concerted effort is needed to establish and consolidate national and local level urban and housing indicator systems in as many countries as possible, develop a process of timely and regular compilation and review of such data at the global level and a regular dissemination system of this data. Such a system will facilitate the implementation of the NUA be monitored, with outcomes analyzed and knowledge shared to achieve sustainable and equitable housing policies. The NUA needs to acknowledge the current data gap and put in place a system to support countries and cities that face technical, financial and political constraints to data collection, in order to ultimately achieve a consistent framework to measure urban and housing outcomes.

## CONCLUDING REMARKS

The main purpose of this paper is to fill the gap in the New Urban Agenda with regards to the guiding principles, implementation strategies, and monitoring of the goal of adequate and affordable housing for all. Given the crucial importance of housing in achieving inclusive, safe, resilient, and sustainable cities, efforts should be made to elaborate what needs to be done to achieve this goal, by whom, and with what resources.

<sup>3</sup> The actual proportion of people living in slums is measured by a proxy, represented by the urban population living in households with at least one of the four characteristics: (a) lack of access to improved water supply; (b) lack of access to improved sanitation; (c) overcrowding (3 or more persons per room); and (d) dwellings made of non-durable material. Progress on the proportion of slum dwellers was achieved mostly because of China's large-scale housing programs and the indicator says little about progress in the remainder of the developing world.

<sup>4</sup> Now roughly 60 countries have an HPI, but data comparability is low.

<sup>5</sup> The Wharton School's International Housing Finance Program established a standardized global data collection system for housing finance data and selected housing demand and supply data—Housing Finance Information Network or HOFINET.

As for the “what needs to be done”, while we agree that housing should be placed in the context of urban land use and infrastructure planning, we need to look at the way housing is financed and focus on the expansion of sustainable financing mechanism for both housing and urban infrastructure to secure the needed investment in housing with adequate infrastructure. The key is to fix the supply side of the housing market to make housing more affordable and to strengthen housing finance and rationalizing housing subsidy programs to facilitate households to purchase or rent adequate housing with urban infrastructure and services. Implementation of policies regarding finance and subsidies require collaboration and coordination with the ministry of finance and the central bank. This is necessary because a well-functioning mortgage market requires sound macroeconomic policies to determine interest rates and the depth of capital markets. A particular concern is that interest rate subsidies may impair the development of a healthy mortgage market.

As for the division of responsibilities, we emphasize the need for a clear and complementary assignment of roles for national and subnational governments as well as for the private sector and civic society. This is based on the assessment of the reasons the well-intended and logical framework of the “enabling markets to work” strategy advocated by the Habitat Agenda of 1996 did not deliver the expected outcomes. The enabling approach remains valid; well-functioning markets can reduce the needs of subsidies and allow the government to devote scarce resources to assisting those who really need help. But the enabling approach should not be misinterpreted as a pulling-back of government from the housing sector and leaving housing issues to be resolved by markets. Each country should take a practical approach to the division of responsibilities and consider the constraints that each faces such as nascent institutions of ownership rights and property registration, inadequate urban planning laws and policies, small financial sector and structural weaknesses in the housing finance system. The right division of responsibilities between national and local (or subnational) government and the alignment of their objectives and incentives is crucial, as the subsidiarity principle emphasizes. This is because much of the implementation of government policies falls on local governments, and local government is also responsible for land use regulations and building permits for residential housing as well as nonresidential real estate.

As for the means of government intervention, both national and local government must find ways to take advantage of land value capture and other land management mechanisms to finance housing and infrastructure developments. We also recommend the reform of housing subsidy policies and programs in many countries to consider the needs of all income groups that deserve government assistance.

Finally, we note that effective implementation of the NUA requires systematic data collection, analysis of data, and practical indicators as well as the capacity for measuring and monitoring progress. The estimates of key parameters such as demand and supply elasticities are outdated if available, or nonexistent. Housing indicators which had been carefully designed and field-tested for HA were not utilized. Efforts should be made to install a workable system at local, national and global levels.

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