



THE HOUSING BAROMETER

A tool to support a rapid housing
sector review

The Housing Barometer: a tool to support a housing sector review

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The Housing Barometer draws on the Practical Guide for Conducting Housing Profiles by UN-Habitat. It has both a pedagogic and a research purpose. The tool was created with the dual goal to support the realization of the housing profiles and to support the housing sector analysis, stimulating holistic and integrated thinking, and strengthening the users' understanding about the complexity of the housing sector and the interlinkages between the various attributes and sub-sectors of housing.

The tool was tested for the first time in the training course “Innovative Approaches to Deliver Affordable Housing Options in Asia” which took place from 19-29 November 2018, organized by UN-Habitat in partnership with the International Urban Training Centre (IUTC) in Korea. Nearly 30 participants attended the training, including mayors, deputy mayors and senior officials from Asian national bodies and cities. The Housing Barometer was tested in countries like Bangladesh, Bhutan, India, Indonesia, Mongolia, Philippines and Vietnam. It was further tested in January 2019 by the participants of the Housing Specialization of the Master Programme in Urban Management and Development organized by the Institute for Housing and Urban Development Studies-IHS, Erasmus University of Rotterdam.

The final draft was shared with experts from UN-Habitat and partners and was peer-reviewed by Anaclaudia Marinheiro Centeno Roszbach, Coordinator Latin America and the Caribbean, Cities Alliance; Inês da Silva Magalhães, former National State Secretary of Housing of the Ministry of Cities of Brazil; Luis Bonilla Ortiz-Arrieta, Operational Director TECHO, Santiago, Chile; Marielos Arlen Marin, Ph. D. Candidate in Regional Planning, University of Massachusetts Amherst, USA; Matthew French, Housing and Urban Development Expert, Program Manager, Revitalising Informal Settlements and their Environments (RISE), Monash Sustainable Development Institute; Kecia Rust, Housing Finance Specialist and Head of the Centre for Affordable Housing Finance in Africa, Johannesburg, South Africa; Dr Wolfgang Amann, head of the IIBW – Institute for Real Estate, Construction and Housing Ltd. (Institut für Immobilien, Bauen und Wohnen GmbH), Vienna, Austria; Monica Ramirez, Director Housing and Human Settlements, Latin America and the Caribbean, Habitat for Humanity International, Costa Rica; Mariana Barrera, economist, National Director for Innovation and Sustainable Development of the National Secretariat of Urban Infrastructure of the Ministry of Interior, Public Works and Housing of Argentina; Ester van Steekelenburg, Housing and Urban Management Expert, Head of Urban Discovery, Hong Kong; Dr. Viviana Fernandez, architect and professor at the Faculty of Architecture and Urbanism of the University of Chile, former staff of the Ministry of Housing and Urbanism of Chile; Doris Andoni, Housing Expert and former Executive Director of the National Housing Agency, currently Head of the Housing Unit of the Ministry of Finance and Economy of Albania; David Sims, senior economist, consultant to UN-Habitat, principal author of the Housing Profile of Vietnam and Tunisia; and Fernando Duarte Callizo, director of TECHO. The peer-review process provided excellent and insightful expert knowledge which improved the final product that is presented herein. Their inputs and commitment to improving the tool is greatly appreciated.

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PREAMBLE

The Housing Barometer is a tool to support a rapid analysis of the housing sector. It provides a quick overview of the housing sector that feeds directly into the housing policy formulation process. The Housing Barometer relies on qualitative assessments rather than data and empirical evidences. It expresses the perceptions of policy makers, decision makers and housing practitioners about the performance of the various subsectors of the housing sector. The result of housing sector analysis through the Housing Barometer gives an immediate visualization of the performance of the housing sector by means of the scoring given to each dimension and sub-sector of the Housing Sector in the context that it is being utilized.

The Housing Barometer is a practical tool that draws on the housing sector analysis methodology as outlined in the Practical Guide for Conducting Housing Profiles¹.

The Housing Barometer enables an easy diagrammatic visualization of the weaknesses and strengths of the housing sector in a given city/country, and as a result provides a basis for further policy discussions. It is illustrated as a housing sector diamond (the geometric figure) that suggests areas for further analysis and possible policy response. The Housing Barometer is therefore a problem-solving tool helping in the identification of the problem areas or policy shortcomings that need attention.

The housing sector diamond or radar chart – the visualization and geometric figure – expresses the results of the scoring system tagged to values given to a series of questions made about land supply, infrastructure provision, the construction industry, the house finance industry, urban planning, supply of labour, rules and regulations and so on. Low scores will indicate areas that need policy interventions and indicate where additional data, research and evidences will need to be collected in order to support the design of the evidence-based housing strategy. High scores mean that policies are in place and resulting into positive outcomes. It goes without saying that the normative view of the housing sector – as defined in the Practical Guide for Conducting Housing Profiles – is the foundation of the Housing Barometer.

From the outset, it is important to highlight that the performance of a country's housing sector is a complex issue. The analysis requires grounded research on housing, land and real estate markets, institutions, public policies, outcomes and social-economic processes that have a direct impact on cities and towns and on the quality of life of the inhabitants. Thus, the Housing Barometer is a supporting tool and does not replace the comprehensive analysis of the housing sector which is outlined in the 'Practical Guide for Conducting Housing Profiles' from which the standardisation of indicators and questionnaires are derived.

The outcome of the analysis provided by the Housing Barometer is to a certain degree an interpretation of the Housing Sector performance. By no means it replaces the need for empirical evidences, market surveys and policy research that must be carried out for an in-depth analysis of the housing sector in a given country and the formulation of a housing policy response. Finally, the Housing Barometer was designed with a dual goal of serving on the one hand the broad housing industry community in their quest to analyse and understand the structure and functioning of the housing sector, and on the other hand to serve as pedagogic tool to support Housing Practitioners Labs which are part and parcel of capacity building carried out by UN-Habitat in the housing field.

1 UN-Habitat (2011). Practical Guide for Conducting Housing Profiles. Nairobi: UN-Habitat.

PART I

Background, Context and Relevance of a Housing Barometer

2. THE MEANING AND DEFINITION OF HOUSING

Housing is an integral element of a country's economy². Its backward and forward linkages with other parts of the economy strictly bond people's needs, demands and social processes with the supply of land, infrastructure, building materials, technology, labour, and housing finance. These linkages allow housing to act as an essential engine for sustainable development and poverty reduction in both society and the economy³. Operating within an overarching governance of the housing sector, a framework defined by institutional and regulatory systems that enable society to build homes and neighbourhoods, housing has an inescapable physical manifestation through the building of houses, dwellings, shelter, accommodation, site and services and/or residential units. Without a functioning housing sector, urban centres cannot be established or developed. A functioning housing sector offers appropriate, affordable housing and sustainable patterns of urbanisation – which are critical for the future of our ever-urbanising planet⁴.

The success of a well-functioning housing sector involves various elements and components applicable to every housing stakeholder measured by the ability of the sector to deliver affordable housing options in scale and diversity in size, location, standard, price and typology. A housing policy, therefore, is built on and integrates a systematic analysis of the supply and demand side of the sector, the responsibilities and relationship between the various stakeholders and institutions operating within the governance framework⁵. The Housing Barometer serves the purpose of rapidly analysing the housing sector prior to the realization of the Housing Profile and the in-depth market and sector analysis that precedes the design of well-intended policies.

3. WHAT IS THE HOUSING BAROMETER?

The experience with undertaking the Housing Profile in various countries demonstrates the need to quickly unveil problem areas of the housing sector prior to initiating the comprehensive analysis of data, information, and participant's observations that sustain the housing sector analysis employed by the Housing Profile Methodology. The Housing Barometer is a tool to help achieving this. In addition to this, it helps to initiate the dialogue with local stakeholders to validate preliminary assessments provided by the tool.

2 Kissick et al., (2006). Housing for All: Essential to Economic, Social, and Civic Development. PADCO in collaboration with The International Housing Coalition. http://www.habitat.org/lc/housing_finance/pdf/housing_for_all.pdf

3 Urban Economics (Second Edition). By Arthur O'Sullivan, Department of Economics, Oregon State University, USA. Undated.

4 UN-Habitat (2011). Practical guide for conducting Housing Profiles. Nairobi: UN-Habitat.

5 Lund, Brian (2006), "Understanding Housing Policy", United Kingdom: The Policy Press, University of Bristol.

For those undertaking the Housing Profile, the Housing Barometer becomes a supporting tool to set some parameters. It can also be used to assess the perception and views of the various housing stakeholders about the housing sector in a given location by allowing them to use the tool so that a compilation of responses could give as a broader picture of stakeholders' perceptions. It must be clear from the outset that the Housing Barometer is a tool, which draws on qualitative information and individuals' assessment. The more informed and the more data and information are available at hand, the more accurate can the Housing Barometer visually express the situation of the Housing Sector. Thus, the Housing Barometer helps policymakers and housing practitioners in the identification of the weaknesses and strengths of the housing sector, unveiling areas that need policy attention.

The Housing Barometer is the outcome of the scoring and values given to a set of questions to assess each sub-dimension of the housing sector, as illustrated in the Practical Guide for Conducting Housing Profiles (Figure 1):

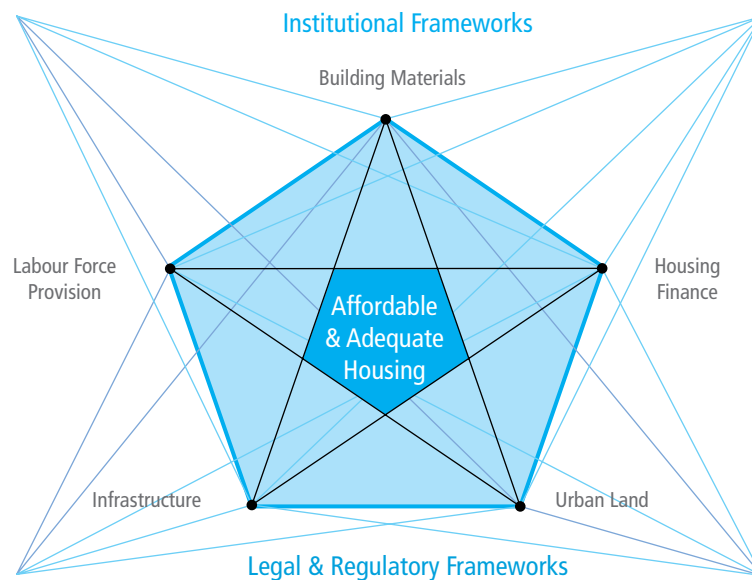


FIGURE 1 Understanding the Structure of the Housing Sector

4. THE STRUCTURE, OPERATION & ROLE OF THE HOUSING BAROMETER

As mentioned above, the barometer is comprised of a set of 6 questionnaires for each sub-division that defines and structures the housing sector, with standardised indicators giving a value scoring to each sub-dimension of the housing sector that is visualized in a radar chart, also called the housing diamond. The selected questions were drawn from the Practical Guide for Conducting Housing Profiles which ensures consistency and coherence with the enquiries made when undertaking an in-depth analysis of the housing sector as advocated by the Housing Profile Methodology.

4.1 INDICATORS

The values of the scoring given to each question varies in range between zero and five, with zero as the lowest rating and five as the highest meaning non-existence in one extreme and fully implemented on the other. Figure 3 shows the indicators utilised for each mark. Different definitions were given to each ranking due to the variety of questions presented. Therefore, their applicability might vary according to the context in which it is being applied.

4.2 SUMMARY AND FINAL SCORES

Each questionnaire has 15 to 21 questions. The maximum score ranges from 75 to 105, representing a scoring of 100%. To be able to obtain the final percentage for each element showing on the chart, a rule of three⁶ is used. An example of a component with 15 questions is presenting in Figure 2.

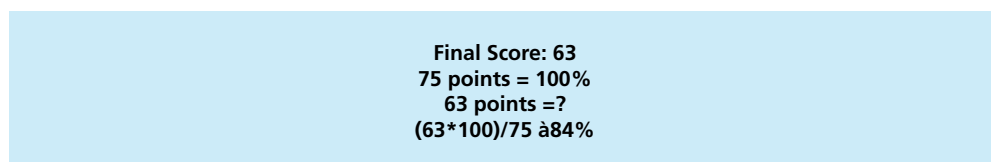


FIGURE 2 Scoring System of the Housing Barometer

⁶ The Rule of Three is a Mathematical Rule that allows you to solve problems based on proportions.

Scoring	Indicators				
0	Not yet in place	Does not exist but it is urgent to implement it	No evidence	Extremely unclear	No, never
1	It is in process	Does not exist but it needs to be implemented	Some evidence but unreliable	Unclear	No, but it's in process
2	It exists, but it is not regulated yet	Does not exist, but it would be useful to consider implementing it	Little Evidence	Somehow unclear	Yes, but rarely
3	It exists, it is regulated, but it is not implemented yet	Does not exist, but there are plans to implement it	Some evidence	Somehow clear	Yes, sometimes
4	It exists, it is regulated, it is implemented, but it does not function properly	Does not exist and the lack thereof does not have a negative impact	Moderate evidence	Clear	Yes, often
5	It exists, it is regulated, it is implemented, and it functions properly	Does not exist and does not apply in my country	Strong evidence	Extremely clear	Yes, always

FIGURE 3 Scoring and Values of the Housing Barometer

The next section demonstrates the different variables that the Housing Barometer can generate to explain the key problem areas that need improvements and where policymakers and housing practitioners should give policy attention, undertake in-depth analysis and assess the existing conditions affecting the performance of the housing sector.

5. RESULTS AND MEASURES BY THE HOUSING BAROMETER

5.1 HOUSING BAROMETER 100%

Figure 4 visualizes the results of the Housing Barometer showing a well-functioning housing sector where the six sub-sector components score the highest scoring with a total of 75 points (100%). A housing sector that achieves this mark reveals a housing sector with a balance between supply and demand and where all of its subsectors seem to function adequately; planned land is adequately available and serviced-land are supplied at a scale compatible with the demand for housing, and the building industry is functioning well and supplying building materials in diversity and scale. All in all, a high score in the Housing Barometer reveals a dynamic and well-functioning housing sector⁷. Further research will help to reveal eventual distortions and anomalies in the sector. One could predict that housing policy is doing its work and government and the private sector are most likely to fulfil its role in housing developments. A high score in the Housing Barometer may also reveal that housing is playing an important role in macro-economic development, employment generation and poverty reduction.

⁷ Drawn from Housing Enabling Markets to Work. World Bank Policy paper. 1993.



Photo © UN-Habitat

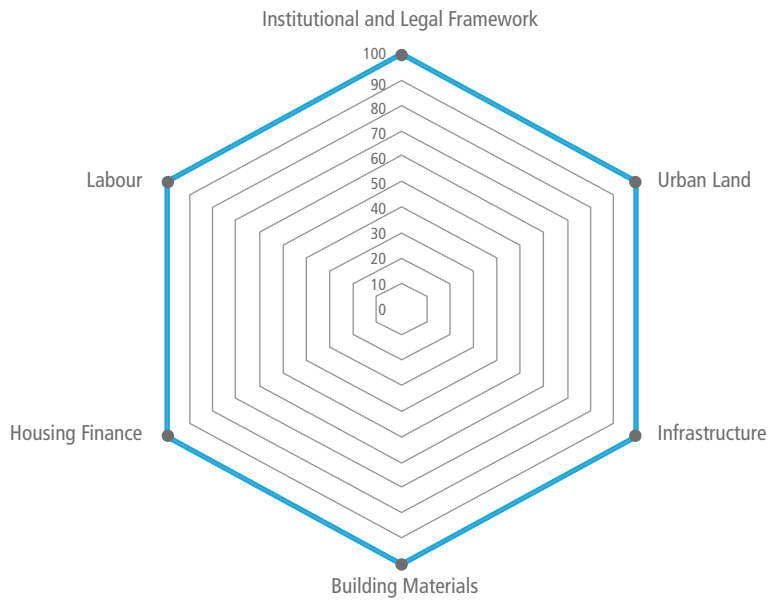


FIGURE 4 Housing Barometer Scoring 100%

5.2 HOUSING BAROMETER 70 - 80%

A Housing Barometer scoring in the range between 70 to 80%, as revealed in Figure 5, means that although there is a certain cohesion in the functioning and structure of the sector and the performance of its sub-sector and components, the housing sector may be facing some difficulties and bottlenecks. Some restrictions are hindering land supply for housing, housing finance might not reach all housing consumers, and there may be

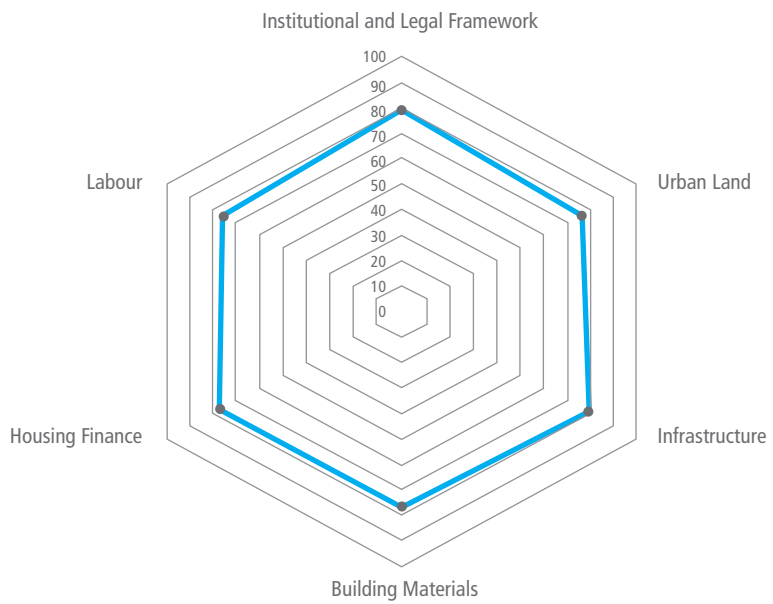


FIGURE 5 Housing Barometer Scoring 70-80%



insufficient investment in infrastructure limiting the supply of serviced land of scale. The construction industry and building materials supply may be falling short in meeting the demand for new housing construction.

5.3 HOUSING BAROMETER 50 – 60 % (OR LESS)

When the diagnosis of the Housing Barometer yields a result where the sub-sectors and components score less than 60 %, as in Figure 6, it indicates that the housing sector faces a considerable bottleneck that is affecting its ability to provide adequate and affordable housing that meets the demand of the population. It indicates the likelihood of problem areas and policy shortcomings in the supply but also in the demand side of the market. In this case, the Housing Barometer helps to obtain a quick visualization of a housing sector that is not well-functioning, presenting bottlenecks either in the supply of land, infrastructure, building materials, housing finance or the institutional and financial frameworks. By responding to the questionnaires one will have a first insight of the housing sector. It goes without saying that one needs to make an in-depth analysis and undertake research to find out more of the identified problem areas in a way that the policy response is evidence-based and well-informed.



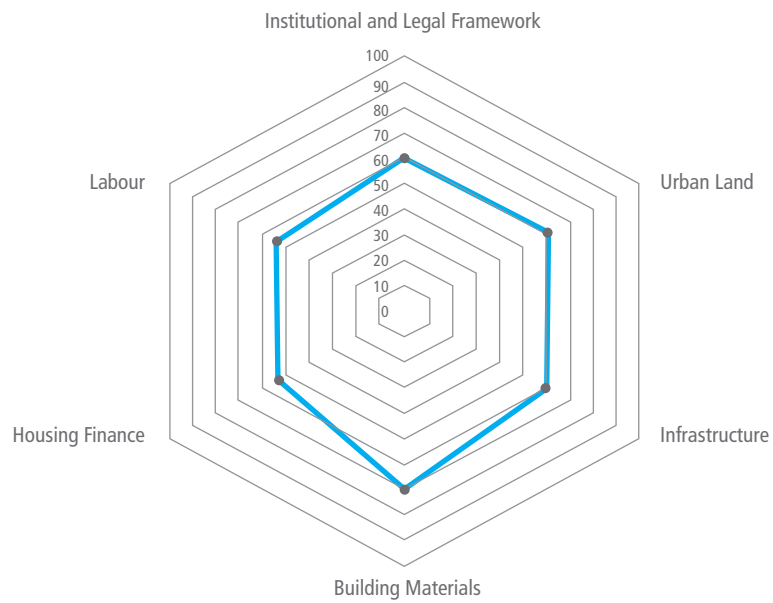


FIGURE 6 Housing Barometer 50 – 60 % (OR LESS)

5.4 HOUSING BAROMETER REVEALING WEAK LABOUR FORCE PROVISION

When the Housing Barometer reveals a deficiency in the supply of labour (Figure 7), it may indicate that the housing sector has difficulties to produce skilled labour for the construction industry which affects the supply side. It might indicate the lack of vocational training, insufficient volume of construction to meet the demand and a building industry not well developed and capable to generate scaled up and diversified employment opportunities. This may require in-depth analysis on the availability of vocational training, on the job training and knowledge available for those involved in the building materials and construction industry. It might reveal inadequate infrastructure for quality control, testing and assurance protocols for safety and durability of construction materials and technology.

It might indicate the absence of federations, associations or unions that ensure the safety and interests of workers, both with employers and with the government. Another factor to consider is the percentage of self-construction existent in the urbanized agglomerations in the country.

Therefore, the low results of the Housing Barometer, in this respect, triggers the design of measures and policies to improve the labour sector associated with the building materials and construction industry which altogether has impacts on housing prices and accessibility to adequate housing by all segments of society. It indicates problems in the employability in the sector which research needs to unveil.

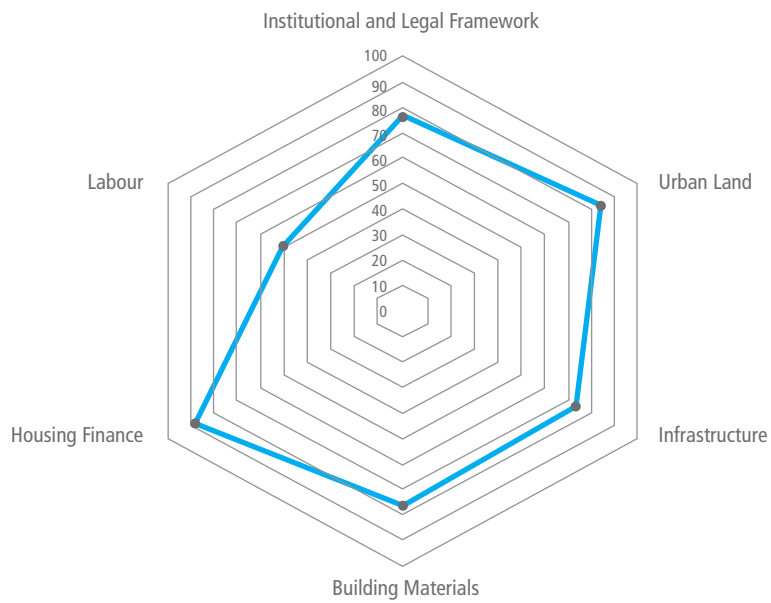


FIGURE 7 Housing Barometer revealing weak labour force provision

5.5 THE HOUSING BAROMETER REVEALING WEAK INFRASTRUCTURE

Figure 8 shows the results of the housing barometer when there is shortage or inadequate provision of infrastructure in the housing sector. This result indicates that there are bottlenecks hindering infrastructure provision which has a direct impact on the supply of housing opportunities. Investments in infrastructure may be lagging, severely curtailing the supply of serviced land for housing development. This might indicate distortions in price as well as the overall availability of housing. This should lead policy makers and decision makers to look at the overall performance of the utility sector and analyse the causes behind the shortcomings in the provision of potable water, sewerage, electricity, drainage, solid waste, transport, roads and other utilities needed for the full development and consolidation of residential areas in cities. In this case, the Housing Barometer gives an indicator that accessibility, distribution, universality and even affordability to basic infrastructure may be at stake for one reason or another. This is likely to stimulate further investigation in the institutional and regulatory frameworks and the financial and economic aspects of infrastructure provision, as well as the ability to pay of the consumers.

The Housing Barometer, in this case, helps to unfold the close association between scarcity of basic infrastructure, housing affordability and informal housing developments. The low scoring in infrastructure provision is likely to reveal the likelihood of informal urbanization and multiplication of slums.



Photo © UN-Habitat

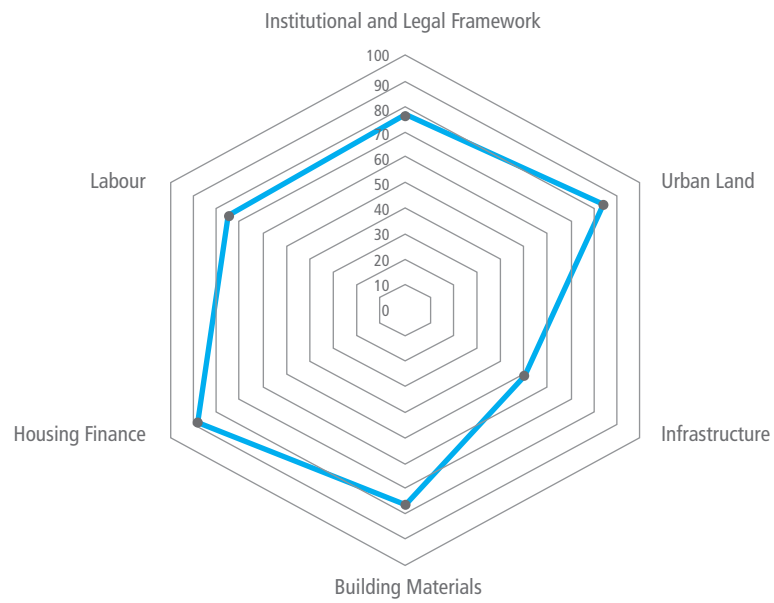


FIGURE 8 Housing revealing weak infrastructure

5.6 HOUSING BAROMETER UNVEILING WEAK INSTITUTIONAL AND LEGAL FRAMEWORK

The institutional, legal and regulatory frameworks are the conduits through which land supply connects with infrastructure provision, housing finance and the building construction industry, determining the functioning of the housing sector. In this case, the Housing Barometer helps to assess the existing norms, institutions, regulations, institutions that regulate the housing sector, whether these exist and are being enforced. A low scoring of the institutional and regulatory framework is reveals a housing sector that is likely confronted with a sizeable informal housing market and distortions in the other sub-sectors. The low scoring of the institutional and regulatory frameworks requires further studies to unveil the eventual distortions in other sub-sectors such as informality in land tenure, the housing provision in an unregulated manner, inadequate regulations and enforcement capacity to guide housing and urban development. Figure 9 reveals the results of the Housing Barometer.

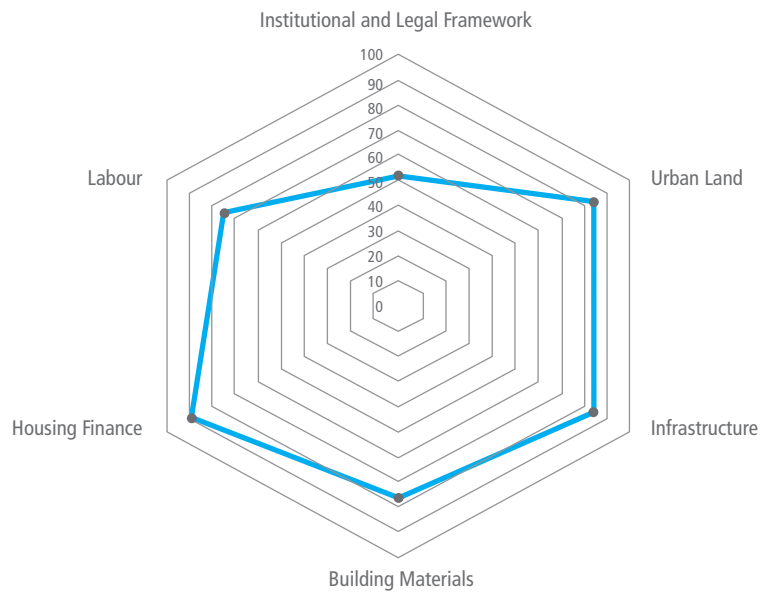


FIGURE 9 Housing Barometer unveiling weak Institutional and Legal framework



Photo © UN-Habitat

5.7 HOUSING BAROMETER REVEALING A WEAK HOUSING FINANCE

The ease with which one can acquire a loan, credit or financing to enable the purchase of a housing unit (a house, apartment or a residential plot) and the loan term or amortization period – the duration in months or years that it takes to pay back the loan/credit) – are essential elements of housing finance which increases the ability of the population to pay for and access housing. The willingness and ability to pay are fundamental factors of housing finance and part and parcel of a well-functioning housing sector. Thus, the existence of financial institutions, collateral and foreclosure laws to protect lenders and borrowers, and the diversity of the housing finance industry should be looked at in depth. The Housing Barometer helps to quickly unveil whether housing finance exists and is accessible to the population by going through fundamental questions which provides a rapid overview of the housing finance industry. This is an important dimension of housing because it directly connects with the national economy. If underdeveloped, it might distort financial markets and the overall performance of the housing sector, making housing unaffordable and propelling informal land and housing development processes. Figure 10 illustrates this.

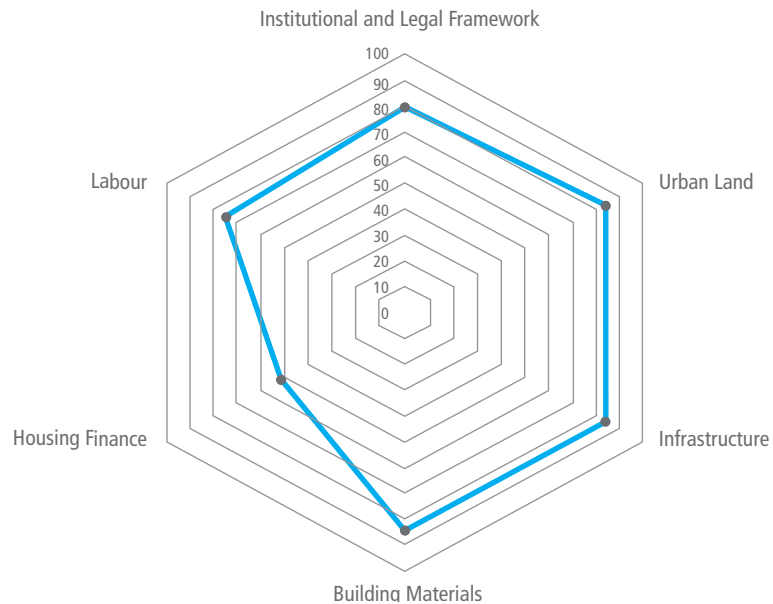


FIGURE 10 Figure 10: Housing Barometer revealing a weak Housing Finance

5.8 HOUSING BAROMETER UNVEILING SHORTAGE OF URBAN LAND

As mentioned in the Practical Guide for Conducting Housing Profiles, without land one cannot build houses nor develop neighbourhoods and cities⁸. When the Housing Barometer reveals a low scoring for the supply of land for housing, as in Figure 11, it indicates that there is a scarcity of land for housing and consequently it is most likely that in this city housing prices are speculative, informal settlements are likely to multiply and peripheral urban expansion may become the norm. This in turn may affect the legal security of tenure and land ownership, price and land valuation, and the size of land for housing development. In this case the Housing Barometer immediately informs that distortions in the availability of land, expressed in the low scoring of the housing diamond, will likely generate scarcity of land and high price of housing. Thus, there is a high probability that low scoring in the area of land supply in the Housing Barometer is closely associated with housing unaffordability.

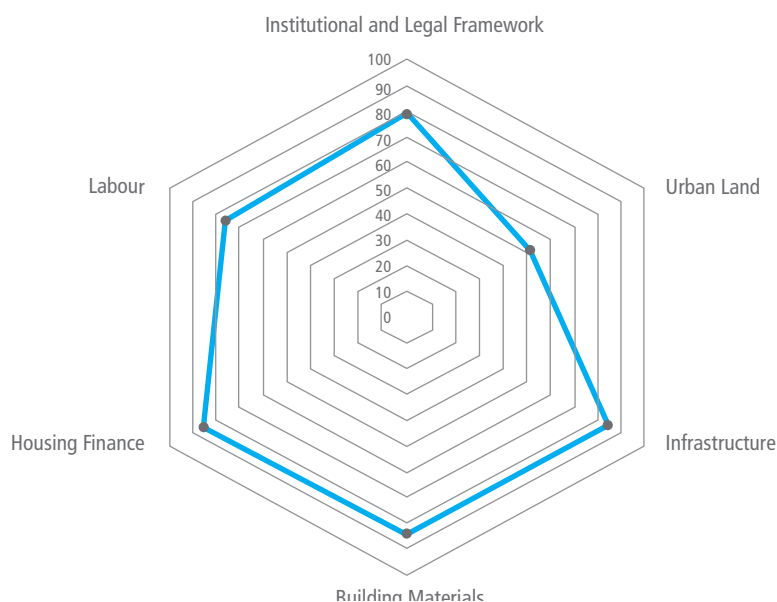


FIGURE 11 Housing Barometer unveiling shortage of Urban Land

8 UN-Habitat (2011). Practical guide for conducting Housing Profiles. Nairobi: UN-Habitat. Pg.51



Photo © UN-Habitat

PART II

6. GUIDELINES FOR THE USE OF THE HOUSING BAROMETER

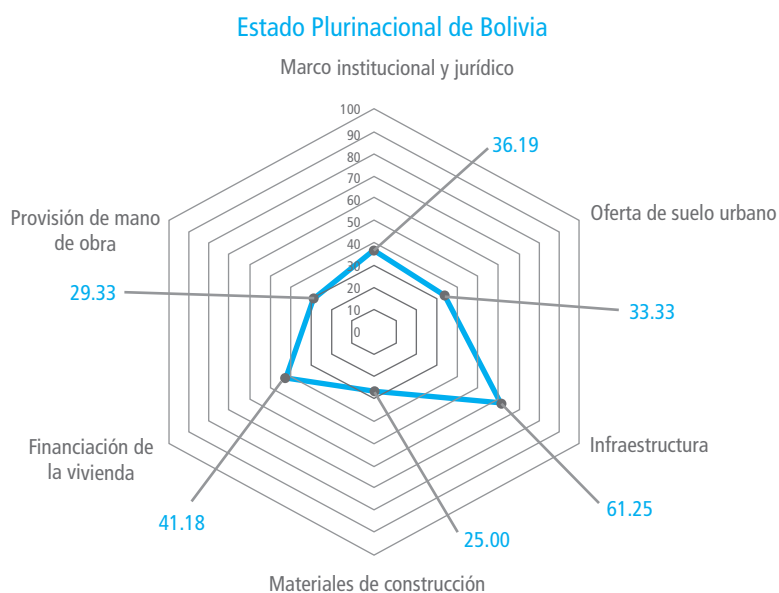
The visualization of the results of the Housing Barometer is generated from the answers (scoring) given to a set of questions referred to each of the 6 elements that defines housing, according to UN-Habitat’s Housing Profile Methodology. These questions are organized in an excel workbook, whereby responses range from low to high scores.

The tool was tested with some examples of the Housing Profile, in order to assess the validity of the tool, the level of precision of the visual outcome of the Housing Barometer and its pedagogic value to support capacity building and training in the housing field. It goes without saying that this was not done by local experts and drawn on their experience but rather based on the information available in the analysis mentioned above. In normal conditions, as a tool to support a rapid housing sector review, the Housing Barometer should be used at the beginning of the housing sector analysis prior to the production of the Housing Profile of the country/city, with the available knowledge that practitioners and policymakers have at hand. The outcome will determine the areas that need further analysis, rigorous data collection and possibly surveys to generate empirical evidence.

6.1 LABOUR PROVISION

Question		Scoring
1	Building codes, norms and technical standards regulate the building construction activities in the country and is included in vocational training and capacity building of the labour force involved in the housing and civil construction sector.	
2	Builders, construction companies, developers receive different kinds of government incentives (policy, financial, land, fiscal, etc.) to build affordable housing at scale and provide employment opportunities for the population.	
3	There is practice of self-built housing in the country and there are different types of enterprises and service providers to support homeowners to build and/or improve their homes and there is data and information about it in the country.	
4	There is enough information about the labour force in the country that indicate specializations, capacity, training modalities, quality control, etc.	
5	There are federations, associations or unions to organise the labour force and defend the interests of its members helping to regulate salaries, work hours’ rates, job security, safety issues, etc.	
6	The proportion of labour costs in relation to the total cost of building a housing unit is reasonable and/or compatible with the level of development of the construction sector and the housing industry.	
7	The building industry and the construction sector demonstrate innovations in building techniques and building knowledge with certain regularity that is absorbed by the labour force and put into practice in the housing building industry.	
8	Building and builders are evaluated on their activities, outcomes and skills in relation to issues of climate change mitigation and resilience.	

Question		Scoring
9	There are specialized centres and higher education and professional training institutions that provide vocational and practical training and education for builders and construction workers to develop and apply technologies, materials and efficiency measures in building/housing construction and use of materials, showing a continuous effort to improve quality, performance and price.	
10	The construction and building materials industry has established standard procedures for certification and protection of specializations/know-how of workers and builders which encourages quality control, standardization and client protection.	
11	The building and construction industry provides employment for a sizeable population and contributes significantly to the GDP of the country.	
12	The marketplace has available information (specialized magazines, newsletters, union reports, online resources, etc.) about the quantity and quality of the labour force engaged in the building industry and construction sector.	
13	The labour force in the building materials and construction industry is formalized, and the employment, contracts and salaries are protected under laws that are enforced by government regulators.	
14	There is adequate information in the marketplace for self-builders about the building materials, technologies, techniques and construction sector as well as about the use of building materials on the percentage of labour related to the use of technology and other relevant information that help to guide self-builders as well as construction companies.	
15	The level of unemployment in the building materials sector and the construction industry is relatively low and there is no shortage of labour (skilled or unskilled labour) in the building materials and construction industry, helping to avoid distortions in labour supply for the housing industry which would affect housing prices and affordability.	
TOTAL (75 POINTS MAX.)		0
PERCENTAGE SCORE (100%)		0.00



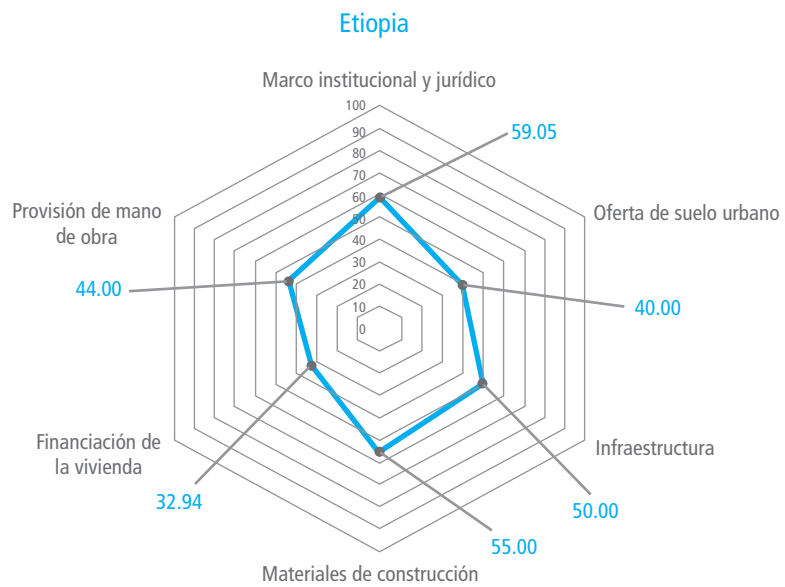
Source: María Cecilia Chacón Rendón

Example of the housing barometer in Bolivia.

Dec 2019, Workshop: Informal Land Markets and Regularization of Settlements in Latin America

6.2 INFRASTRUCTURE

Question	Scoring
1 There are utility companies, institutions and organisations, public and/or private, that are responsible for the provision of basic infrastructure such as water, sewerage, electricity, drainage, heating, cable TV, internet, public works, roads, with their roles well-defined by government bylaws and the governance systems regulating and governing the sector.	
2 The amount of housing units connected to the various infrastructure networks (powerlines, potable water supply, sewerage, drainage, roads, fibre optic, etc.) is recorded, mapped and properly administered and consumption is measured and charged for, and there is enforcement laws to curb default and illegal connections.	
3 The cost of and the tariff for potable water consumption is well-established through meters and counters at every plot/housing and tariff collection is well-established.	
4 The total bill for recurrent household expenditures on basic infrastructure remains within affordable values for most households and therefore accessible for everyone.	
5 The majority of the population and households have access to water, electricity and all other basic infrastructure such as sewerage, solid waste collection, gas/heating service etc., and this is adequately monitored and reported with certain regularity.	
6 The government has investment programmes to expand the provision of basic infrastructure (water, sewerage, electricity, drainage, heating, gas, internet fiberglass, etc.) aiming to extend the networks to all residents (for future universal coverage).	
7 The cost of infrastructure provision and tariffs are available in a transparent manner and it is published with certain regularity in specialized housing, real estate, construction magazines and newspapers.	
8 The government maintains specific sources of public funding, similar to development funds, revolving funds or trust funds that provides regular and predictable funding to finance the expansion of basic infrastructure in a continuous/regular manner.	
9 There are regular inspection procedures to detect losses and problems in the infrastructure networks, showing the existence of maintenance and management procedures, including the detection of illegal connections to the networks, and when discovered, measures such as fines and/or disconnections are enforced according to local practices of utility companies.	
10 There is legislation to support privatization of infrastructure provision and there exist different forms of incentives for private sector participation in basic infrastructure provision, including PPP, BOT, etc.	
11 There is a significant amount of urban households and firms disconnected from basic infrastructure such as piped water, sewerage systems and power lines, as revealed by reports and evidences from research that are published in academic reports, press/newspapers, and recognized by the government.	
12 Investments derived from selective infrastructure development programmes are causing impact in housing markets and affecting affordability and accessibility to housing.	
13 There is practice of data collection and monitoring in the infrastructure sector nationally and locally, with information and data available in disaggregated form (or not) demonstrating the status of infrastructure provision in the country and cities.	
14 Tariffs, fees and user's charges do exist and are collected regularly and effectively in different ways by utility companies responsible for these networks, and these can in principle cover part or all the costs for maintenance and management of the networks, potentially enabling the expansion of basic infrastructure.	
15 The tariffs, fees and user's charges for infrastructure provision are regulated by the government and/or specialized agency which exercises monitoring of price increases according to the economy of the country.	
16 There are policies on urban mobility adopted by the government and there is close linkage between housing provision and public transport, which reveals positive approaches to accessibility to new housing, residential areas and urban expansions.	
TOTAL (80 POINTS MAX.)	0
PERCENTAGE SCORE (100%)	0.00

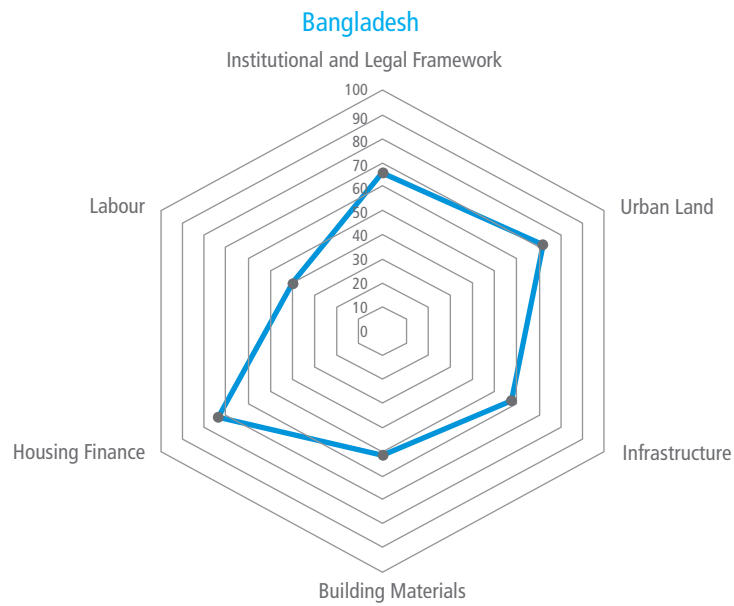


Source: Thomaz Ramalho
 Example of the housing barometer in Ethiopia.
 Dec 2019, Workshop: Informal Land Markets and Regularization of Settlements in Latin America

6.3 INSTITUTIONAL AND LEGAL FRAMEWORK

Question		Scoring
1	There is an official housing policy document that outlines government policies, responsibilities and institutions, programs, finance as well as the overall governance of the housing sector in the country.	
2	The government housing policy was publicly consulted with civil society by large as well as in parliament before its approval by government and the respective legislative institution (parliament, congress, senate, the house of representatives, national assembly).	
3	The housing sector has a dedicated institution to lead the housing policy formulation and implementation in the country.	
4	The housing policy receives a budgetary allocation to secure its implementation.	
5	There are different housing programmes designed and/or under-implementation which address different target groups and/or housing problems.	
6	There is an established government policy towards the existing informal housing stock (slums, informal settlements, illegal buildings, etc.).	
7	The government's housing policy includes a strategy towards homeownership as well as rental housing.	
8	There are mechanisms to prevent forced displacement.	
9	There is a regulation that provides for adequate compensation in case of forced displacement.	
10	The government's housing policy recognises, protects and adopts measures for the realization of the right to adequate housing as formulated in the Habitat Agenda (1996) and the New Urban Agenda (2016), which is also referenced in the national constitution.	

Question		Scoring
11	There is a building code that spells out standards, norms and regulations for housing and residential buildings which are adopted, enacted, regulated, inspected and legally enforced by a government institution.	
12	The Civil Code outlines property rights and legal provisions protecting the purchase, sale and disposal of immovable properties, housing and real estate assets.	
13	There is legislation that provides for expropriation and/or eminent domain type of bylaws that gives power to governments to expropriate land and private properties for the public good.	
14	There are specific institutional and regulatory provisions that regulate the practice of urban planning and land-use ordinances, including the obligation for cities to have a master plan/urban plan/structure plan/urban development plan.	
15	There are statutory urban planning regulations defining urban planning norms and standards to be adopted by cities, which may restrict or facilitate the use, occupation and allocation of land for housing and building purposes.	
16	There is a legal provision regulating multi-family housing, including the compulsory membership of homeowners to homeowner's associations/condominium associations, including financial contributions for housing maintenance and management	
17	There is law regulating the operation of property management companies in the housing market to ensure that there is professional housing maintenance and management in the multifamily housing stock	
18	There is a policy and legislation that makes compulsory the establishment of homeowner's association/condominium associations for the management, maintenance and renovation of multifamily housing.	
19	There is legal provision for foreclosure which is enforced by court and law enforcement to ensure that lenders/banks/ can repossess mortgaged properties financed by loans/credits whenever borrowers default on the payment of the amortization of their loans/mortgages to financial institutions/creditors.	
20	There are non-profit housing providers such as housing association and/or housing cooperatives that mobilise finance and potential residents to make housing affordable for low income households.	
21	There is a national legislation that regulates urban planning and design, indicating parameters and standards for land sub-division, residential plots, areas for communal and public spaces and other residential services, helping to steer planned urbanization and provision of land development for housing and residential use, which is enacted and enforced locally and nationally.	
22	There are public and/or private institutions that provide and promote financial assistance, subsidies and housing/shelter assistance for homeless people.	
	TOTAL (110 POINTS MAX.)	0
	PERCENTAGE SCORE (100%)	0.00

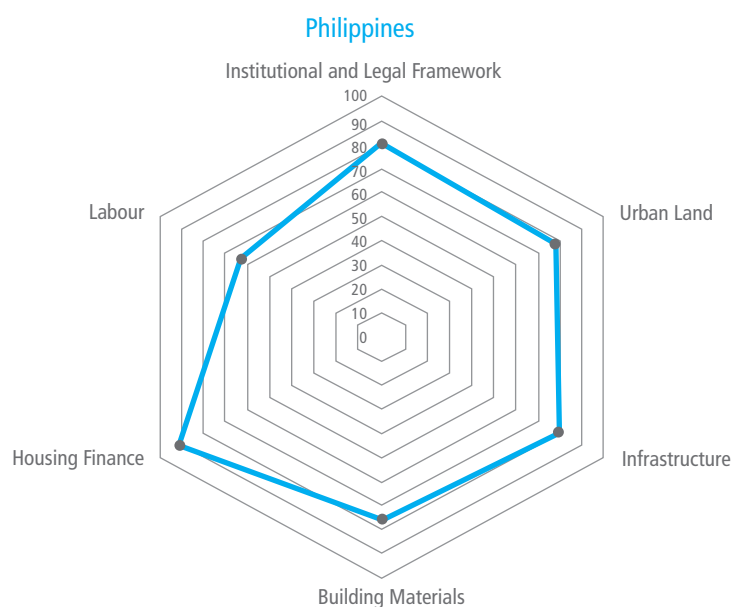


Example of the housing barometer in Bangladesh.
Nov 2018, Workshop: Innovative Approaches to Deliver Affordable Housing Options in Asia

6.4 BUILDING MATERIALS AND CONSTRUCTION INDUSTRY

Question	Scoring
1	There exist key institutions and organisations that are responsible for the regulations, inspections, quality control, standards, safety, monitoring and organisation of the building materials and construction industry which positively affects the production, distribution and commercialization of building materials needed for the construction industry to function in support to the housing production in the country.
2	The government exercises its regulatory role in the building materials industry and the construction sector as a whole with the adoption and enforcement of specific norms, standards, fees, taxes, tariffs that go into the final building material products and components that are sold in the market.
3	There are a series of incentives adopted by the government to stimulate and promote the utilization of alternative, sustainable, clean technology or traditional building materials which may include specific waivers, fiscal incentives, subsidies, tax relief, etc.
4	There are specific institutions (public and/or private) that undertake mandatory research, tests, piloting and there are development practices in the country to develop, test, regulate, standardize and disseminate results and the use of industrialized as well as alternative/traditional building materials in the country.
5	There are national/local laboratory/institutions in the country with the mandate and equipment's to test and assess quality, durability and resistance of building materials and components, which set norms, standards, specifications and regulations that are enforced in different ways, showing examples of quality control to protect consumers and ensure the safety of buildings.
6	Raw materials are available in the country which allows domestic transformation and production of building materials to feed the national construction industry and prevents the local/national market from being depend on imported building materials.
7	There is a regulated market that sets price references for key building materials components such as cement, bricks and building components such as iron beams, etc. and there are law enforcement institutions.
8	The cost of building materials in relation to the final cost of the housing is within an acceptable and affordable range in relation to the cost of infrastructure, land and labour and there is a wide range of companies operating in the entire value chain of the housing construction process.

Question		Scoring
9	The market and price quotations and commercialization of the building materials components needed for housing construction is monitored and overseen by public or private institution and published with regularity, keeping a degree of transparency in this market.	
10	There is a well-established industry of pre-fabricated building components and industrialized construction elements that stimulates pre-fab housing buildings at affordable prices.	
11	The Local/national housing development market uses by large nationally produced materials and components rather than international/imported materials.	
12	The production, commercialization and ultimately the supply of building materials in the country meets the demand with prices kept within acceptable levels and speculation is not common.	
13	There are specific government policies to boost innovation in technology, durability, safety, affordability and cultural adequacy of building materials.	
14	There are measures adopted by local and national governments showing public concerns for climate change mitigation and resilience in the production and use of building materials, and the market is responsive to that.	
15	There is an emerging green housing and green building activity in the country helping to set up new standards for clean production sustainability and affordability for both producers and consumers in housing.	
16	The construction sector and the building materials industry is responsible for a significant portion of the GDP of the country, producing jobs, wealth and a value chain for the national economy.	
TOTAL (80 POINTS MAX.)		0
PERCENTAGE SCORE (100%)		0.00

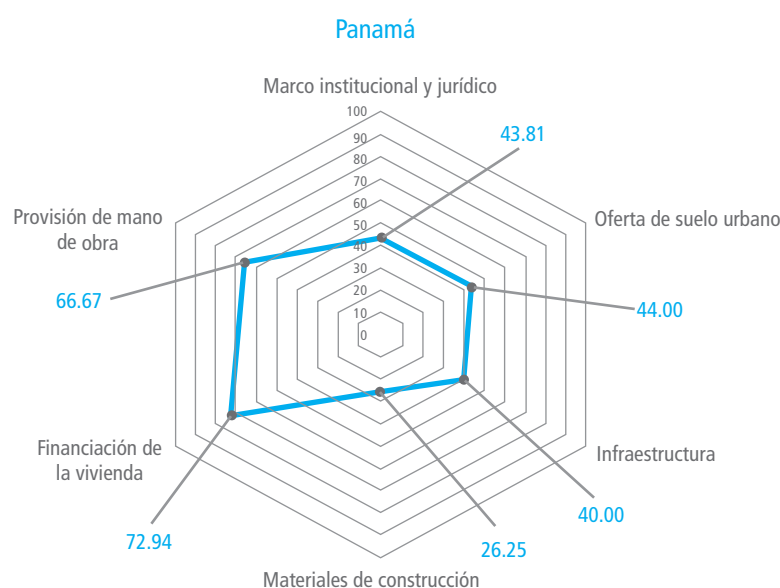


Example of the housing barometer in the Philippines.

Nov 2018, Workshop: Innovative Approaches to Deliver Affordable Housing Options in Asia

6.5 HOUSING FINANCE

Question	Scoring
1 There are several housing finance institutions in the country that provide mortgage loans, housing credit and other forms of financial services which offer different options and services for the population and result in positive competition in the housing sector which is beneficial for the demand for housing.	
2 There is a low percentage of undocumented and insecure land holdings, undocumented income, unregulated building construction which lower the risks attached to loans, mortgages and credits and thus stimulates housing finance institutions to engage in housing finance services in the country.	
3 The existence and availability of subsidies in the forms of grants, bonus, vouchers or preferential credits that meet the demand of the poor sector of society, people with low incomes, enabling them to have access to affordable housing finance and thus facilitating accessibility to adequate housing	
4 There are foreclosure laws and regulations that are enforced by justice, so that lenders, banks and financial institutions can repossess mortgaged properties in case of default of borrowers within a reasonable amount of time.	
5 The central bank and/or similar national finance institution regulates and enforces regulations on the housing finance industry, supervising housing finance institutions, including the determination of interest rates applied to housing loans.	
6 The average amount of money that people can borrow from financial institutions/creditors/lenders through loans and mortgages in relation to their income and ability to pay is defined, affordable, regulated and practiced by banks/lenders and enforced by legislation, helping to avoid financial overburden on households and risk loans for lenders.	
7 There are different types of housing mortgage with different financial constructions and maturity periods of the loans that are provided by housing finance institutions, making loans and mortgages largely accessible in the country.	
8 There are micro-credit institutions that provide micro-credit services for housing and this is accessible by a large percentage of the population in the country.	
9 There is data and information available about the size of the market for micro-loans and the number of micro-financing institutions (MFIs) active in the country.	
10 There is a secondary housing mortgage market in the country, with institutions and laws regulating securitization and investors and financial institutions are actively involved in this market.	
11 The basic legislation that is in place and the law enforcement capacity stimulate banks/lenders and individuals and firms to borrow and lend, and engage in mortgage and loan agreements.	
12 Most banks and housing finance institutions have standard procedures to determine affordability and/or ability to pay for housing finance, helping to define eligibility and procedures to apply to and get approved requests for loans and credits in the market.	
13 There is sufficient knowledge and information available in the marketplace via magazines, newsletters, government publications, etc. about housing prices, household and individual incomes as well as the ability to pay for housing.	
14 Despite some evidences about the existence of informal loan/credit practices, the size of the informal market of loans and credits is negligible and people are encouraged to formally apply for loans in official/legal/accredited financial institutions.	
15 There are several international companies active in the housing and real estate market linking the local/national housing and real estate market with the international capital market and there is legislation to regulate the institutions and businesses actively involved in this type of housing investments.	
16 There are initiatives, public debate, government intentions and/or adopted measures aiming at the regulation of the rental housing supply of online hospitality companies or any other form of rental practices that makes housing inaccessible to the local population.	
17 The size of the housing finance industry is relevant and plays an important role in macro-economic development and the overall economy of the country.	
TOTAL (85 POINTS MAX.)	0
PERCENTAGE SCORE (100%)	0.00



Source: Raisa Banfield

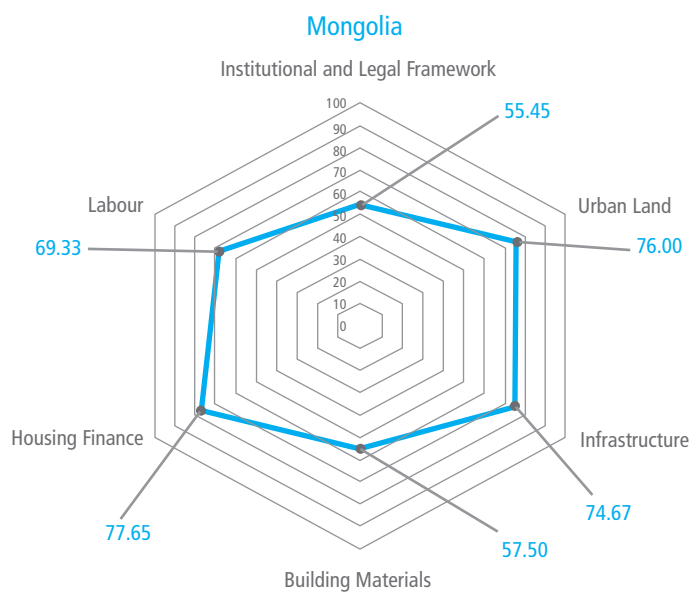
Example of the housing barometer in Panama.

Dec 2019, Workshop: Informal Land Markets and Regularization of Settlements in Latin America

6.6 URBAN LAND SUPPLY

Question	Scoring
1 Customary land ownership, tribal and traditional landholdings are recognised and attached to property rights regime and used to resolve land rights disputes and planning practices within the land and real estate markets in the country.	
2 There are multiple legal institutes to ensure rights over the use and disposal of land, employed by the government, such as individual and title deeds, land lease, land-use rights, community land trust and usufruct allocations when developing and/or allocating land for housing and other land-use planning and building purposes.	
3 The legislation that regulates land subdivision, parcelling, urban planning and overall urbanisation processes adopts a legally defined parameters and a minimum/standard plot size for residential/housing purpose.	
4 There are mechanisms for supply of land for urbanization and a land delivery process that meets the demand for land and infrastructure in the urbanized areas of the country and accompanies the demographic growth of the population.	
5 There is an informal land supply systems and/or processes of land occupation and unplanned land development schemes which is not adequately addressed/recognized by governments.	
6 The institutional mechanisms and regulatory frameworks in place allows for relatively easy land acquisition and land supply which encourages planned development and discourages Informal land markets and illegal handling of land.	
7 The stock of land and the availability of land for urban development is known, is adequately recorded and reasonably managed, organised and administered in the form of a land information system, a cadastre or property registry, which provides legal transparency and safety for the housing and real estate market, encouraging its well-functioning.	
8 Land prices are within the margins of affordability vis-à-vis household incomes and their ability and willingness to pay and there is no pervasive speculation with land.	
9 There is land rent, land property tax, land lease fees or any kind of property tax enforced on occupants/owners of the urban land and/or housing property.	

10	Forced evictions, forced displacement and court cases are rarely used by Governments to expel residents of formal or informal neighbourhoods, resulting into greater tolerance for Informal settlements, illegal buildings and informal occupations of land.	
11	Land-use rights are well-protected, documented and recognized by the housing and real estate markets and there are institutions and legal instruments to enable housing finance institutions to provide loans, mortgage finance and different credits, including collateral laws in case of default and the repossession of mortgaged properties, as well as legal protections of borrowers and housing consumers.	
12	There is legal provision regulating and/or restricting the amount of land held by one individual in urban areas or any policy enforced to avoid monopoly in land ownership and speculation in the land and real estate market.	
13	The government has at its disposal a variety of land management instruments and land-based finance tools to manage and allocate land for housing and urban development such as land readjustment, land value capture, betterment charges, property tax, etc. which are backed up by legislation and enacted laws.	
14	There are institutions, private or public, that undertake market surveys with certain regularity and publicise land values, land markets outcomes, land price gradients that help to inform housing consumers and the housing industry as a whole about choices, locations, the price of a parcel of land in a determined location, making the market more transparent and without asymmetry of information.	
15	The real estate market is well established and regulated with multiple institutions such as developers, real estate agents, associations of real estate markets players that offer wide opportunities for a well-functioning housing and real estate market that offer opportunities for all.	
TOTAL (75 POINTS MAX.)		0
PERCENTAGE SCORE (100%)		0.00



Source: Group 01

Example of the housing barometer in Mongolia.

August 2019, Workshop: In-country training course in Mongolia on Fundamentals of Affordable Housing

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