



Zoning and urban planning

Understanding the benefits

Sound regulation of construction helps strengthen property rights, protects the public from faulty building practices and contributes to the process of capital formation.¹ But if procedures are too complicated or costly, builders tend to proceed without a permit.² By some estimates 60–80% of building projects in developing economies are undertaken without the proper permits and approvals.³

For many entrepreneurs, construction regulation is an important consideration when deciding where to establish their business. According to a competitiveness report by KPMG, construction costs are the 5th most important factor determining the location of a start-up in the United States and the permitting process is the 17th most important.⁴ One element of construction regulation is zoning, which regulates the location and use of certain types of buildings within a city.

HOW DOES ZONING RELATE TO CONSTRUCTION PERMITTING?

Zoning is an essential tool in successful urban planning. Maps divide communities into different zones based on the types of uses allowed—such as residential, commercial, industrial, public buildings, parks and green areas. In most economies with zoning plans, each zone has its own ordinance governing development within that section. These ordinances determine such

factors as building size, height, shape and color; building location; and urban densities.⁵

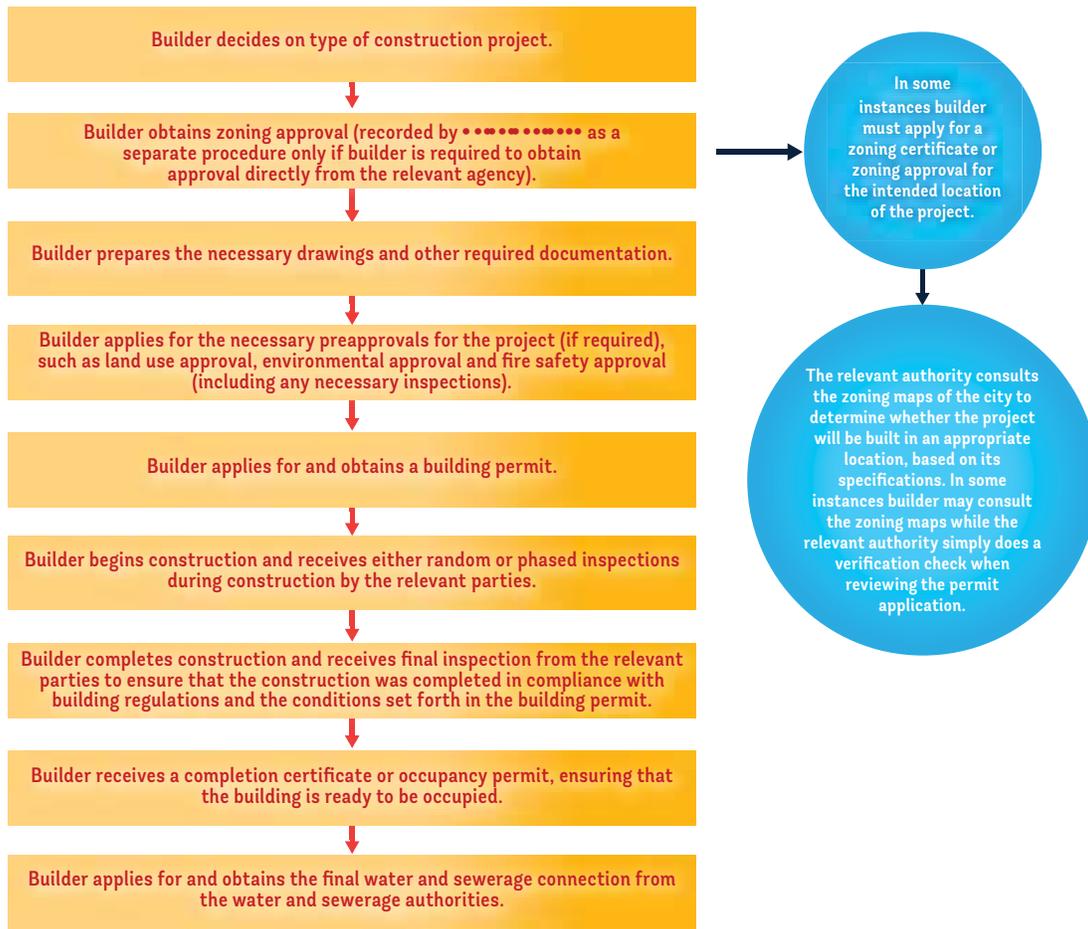
Zoning regulations can provide a useful framework for investors and developers by specifying the most appropriate location for their projects before they apply for a construction permit (figure 6.1). They can also help municipal authorities establish a consistent and predictable basis for granting construction permits and approving or rejecting construction proposals. Having an up-to-date zoning system is therefore essential not only in supporting the coordination among agencies that is needed for prosperous urban planning but also in ensuring efficiency in granting construction permits. Also important is that such zoning systems be developed through a consultative process with broad participation, to ensure that they benefit all social groups.

HOW CAN ZONING AFFECT ECONOMIC DEVELOPMENT?

Through zoning, governments can ensure the proper use of land and avoid mixing incompatible land uses. Zoning has been used as a regulatory tool to respond to changing environmental and development conditions as well, including flooding, rising sea levels and the loss of infrastructure.⁶ Zoning regulations that take into account environmental threats such as flooding protect citizens by ensuring

- Zoning—the process of planning for land use across geographic areas—can help avoid the mixing of incompatible land uses. This has both environmental and economic benefits.
- Zoning practices vary widely around the world. Economies with an efficient and effective zoning process make zoning maps of cities accessible to builders. Others limit access to the building permit authority, which checks the zoning compliance of permit applications. Still others have no zoning system at all.
- Among OECD high-income economies the process for obtaining a building permit, as measured by *Doing Business*, takes 19 fewer days on average in those where the process includes zoning procedures than in those where it does not.
- In New Zealand all municipalities have a detailed, up-to-date zoning plan that has been approved through a process with intensive public involvement—including public hearings to allow residents to offer suggestions or objections.
- Guatemala, a recent success story, introduced a land management plan in its capital city in January 2009. A new zoning system established zones based on the general use of land, including mixed-use zones.

FIGURE 6.1 Where does zoning generally fit into the construction permitting process?



Source: Doing Business database.

that future development keeps them and their possessions out of harm's way. More generally, zoning plans can promote the conservation of energy and natural resources, foster a greener environment, improve sustainability and enhance the ability to adapt to climate change.

A good zoning plan can help reduce greenhouse gas emissions by cutting down on vehicle travel—such as by promoting higher-density development and concentrating residential development near job centers. A zoning plan can also help reduce greenhouse gas emissions by promoting an adequate and accessible public transportation system.⁷ By ensuring that certain

municipalities include new areas for housing development and new industries, zoning plans can help address the challenges associated with demographic change and shifts in business activity. In addition, municipal zoning can protect and improve the health of citizens by removing or minimizing pollution from industrial plants and contamination from landfills and sewage. Zoning can help ensure an adequate supply of safe water and the suitable disposal of waste. And it can enhance property values—by reducing pollution, providing suitable light, avoiding overcrowding and traffic congestion, developing green zones and offering proximity to schools, hospitals and other public necessities.⁸

But where a zoning process is too complex or restrictive, it can have an adverse effect on factors such as housing supply and prices. Consider the example of Sweden, where zoning policies mandate that municipalities must approve a detailed development plan for most housing projects before issuing a construction permit. According to the Stockholm Planning Department and an OECD study, more than half of all construction projects—including most apartment buildings—involve designing or modifying a detailed development plan.⁹ This can take 18 months on average, according to estimates from the municipality of Stockholm, and in 20% of cases it can take 3–4 years.¹⁰ Many researchers agree that administrative

barriers to new construction are one of the 2 main factors (the other being rent control policies) that have led to a housing shortage in Sweden over the past decade.¹¹

WHAT ARE SOME GOOD PRACTICES IN ZONING?

Recognizing the importance of zoning and urban planning, many economies require builders to obtain some form of zoning or urban planning approval before building or even before obtaining a construction permit. This is done to ensure that the intended building will be located in the appropriate zone (industrial, commercial or residential) according to the city’s zoning requirements. But economies go about this process in different ways.

Some economies complete the process efficiently and effectively by making zoning maps of cities accessible to builders (in some cases online). In these cases builders access the maps to verify that their project’s intended location is in compliance with zoning regulations, and they can include this information with the building permit application. In Swaziland, for example, builders are responsible for checking the zoning maps and including the zoning information when submitting their permit application to the municipality. In the United States builders in New York City must complete a zoning diagram form available online and submit it along with other required forms to the Department of Buildings. The Department of Buildings will still review the form to check that the project complies with the city’s zoning policies.

In other economies the permit-issuing authority checks the zoning compliance itself after receiving the building permit application. In The Bahamas, for example, a builder is required only to submit a permit application to the Building Control Unit. This unit then

automatically forwards the application to the Town Planning Department for zoning approval, with no involvement from the builder. In Belize the Building Plan Committee of the Central Building Authority checks the permit application to ensure compliance with zoning, environmental and fire safety requirements.

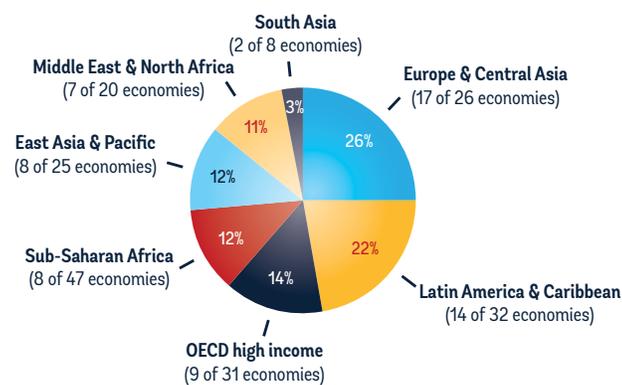
Neither of these processes requires the builder to take the extra step of actually obtaining a zoning approval before applying for a building permit—a good-practice scenario if completed efficiently without significant delays. But efficiency is not all that is important. Around the world, good zoning systems also need to be broadly inclusive, incorporating all groups in society to bring about positive social outcomes. They also need to be regularly updated to reflect changing needs and developments.

Sixty-five of the 189 economies covered by *Doing Business* do require that builders go through the additional step of getting urban planning approval before obtaining a construction permit. Of those 65, the largest shares are in Europe and Central Asia (26%) and Latin America and the Caribbean (22%) (figure 6.2). This is a second-best

scenario: a zoning system is still in place and zoning compliance is still verified, though not in the most efficient way. Nevertheless, requiring verification of zoning compliance is better than having no zoning system at all—with builders able to construct any type of project in any part of the city.

Thirty-six of the 65 economies require builders to obtain approval to build in their intended location before they can receive a construction permit (table 6.1). Twenty-two of these 36 economies require a zoning permit as this form of approval. A zoning permit or zoning clearance signifies that the land use for the planned development is consistent with the zoning regulations. In Canada the building code requires a builder to obtain a zoning permit before even applying for a site plan approval and the technical review of a development application. Among the 22 economies requiring a zoning permit, some issue it more expeditiously than others. In the Philippines it takes 5 days on average to obtain the site clearance from the City Planning and Development Office that a builder must have to apply for a construction permit. In Bangladesh obtaining a zoning clearance from the Capital Development Authority (Rajuk) in Dhaka takes 45 days on

FIGURE 6.2 Half the economies that require the additional step of obtaining a zoning or urban planning approval are in Europe and Central Asia or Latin America



Note: The numbers in parentheses are the number of economies out of the total in each region that require the additional step of obtaining a zoning or urban planning approval. Source: *Doing Business* database.

TABLE 6.1 What type of clearance is needed in economies with zoning requirements?

| Zoning permit is mandatory | Urban planning clearance or certificate is mandatory | Urban planning clearance or certificate is generally obtained but not mandatory |
|----------------------------|--|---|
| Afghanistan | Albania | Algeria |
| Argentina | Bosnia and Herzegovina | Antigua and Barbuda |
| Australia | Côte d'Ivoire | Bahamas, The |
| Bangladesh | Ecuador | Bahrain |
| Bolivia | Iran, Islamic Rep. | Cameroon |
| Canada | Kosovo | Cyprus |
| Comoros | Lebanon | Finland |
| Costa Rica | Macedonia, FYR | France |
| Czech Republic | Madagascar | Kazakhstan |
| Dominican Republic | Moldova | Latvia |
| El Salvador | Nicaragua | Lithuania |
| Fiji | Serbia | Montenegro |
| Indonesia | South Africa | Morocco |
| Kuwait | Spain | Netherlands |
| Mexico | | New Zealand |
| Namibia | | Palau |
| Philippines | | Papua New Guinea |
| Puerto Rico (U.S.) | | Qatar |
| Solomon Islands | | Romania |
| United States | | Russian Federation |
| Uruguay | | Senegal |
| Venezuela, RB | | Singapore |
| | | Sudan |
| | | Tajikistan |
| | | Trinidad and Tobago |
| | | Turkey |
| | | Ukraine |
| | | Uzbekistan |
| | | Vanuatu |

Note: A zoning permit signifies that the land use for the planned development is consistent with the zoning regulations. An urban planning clearance or certificate generally outlines conditions relating to the plot of land where the builder intends to build, including where construction is permitted on the plot (that is, the specific coordinates).

Source: *Doing Business* database.

average, while obtaining one from the Chittagong Development Authority takes 40 days on average.

In other economies the process is entirely different. In Belgium, for example, an urban planning certificate is required only for large-scale projects. This certificate not only verifies that

the project can be built in the specified zone but also guarantees that the construction permit will be issued without problems—because much of the verification for the permit is done as part of the process for issuing the certificate. For smaller-scale projects all planning regulations are available online. These regulations are set at several

levels—regional, municipal or special zoning—providing several options for verifying the regulatory compliance of the project.

In 29 of the 65 economies there is no legal requirement to obtain an urban planning clearance or certificate. But architects normally request a certificate because it provides all the information needed to ensure that architectural plans are in compliance with building regulations. In some economies the information is available online, but in most the information can be obtained upon request.

IS PERMITTING MORE EFFICIENT WITH ZONING?

While obtaining a zoning or urban planning clearance represents an additional step in the construction permitting process, this does not necessarily mean that economies that require this step have inefficient permitting systems. Consider OECD high-income economies. As measured by *Doing Business*, the process for obtaining approval of a building permit takes 43 days on average in those where it includes zoning procedures, 62 days in those where it does not. Obtaining a zoning or urban planning clearance actually speeds up the process—by 19 days on average in these OECD high-income economies—especially where the builder can obtain the clearance directly online. The reason is that this step avoids back-and-forth interactions between the permit-issuing agency and the architect or even outright rejection of the project because of noncompliance.

On average across all 65 economies that require the additional step, obtaining the zoning or urban planning clearance takes 26 days (of a total of 177 days on average to comply with all formalities to build a warehouse) and costs \$402 (of a total of \$15,709). These economies generally require only

one procedure to obtain the zoning certificate or clearance. Very few require a site inspection as part of this process, but in those that do, the overall permitting system tends to be less efficient. In Indonesia, for example, a builder must first request a city planning permit and building site plan—in Jakarta, from the zoning office, and in Surabaya, from the one-stop shop—then receive an on-site inspection and finally receive the city planning permit. This process takes 22 days on average in Jakarta (where the entire construction permitting process takes 202 days) and 23 days in Surabaya (where the entire process takes 243 days). By contrast, Namibia requires only one zoning procedure: the builder must consult with the Town Planning Department to ensure that the land is in the correct zoning area. Zoning approvals are issued on the spot and at no cost.

Overall, zoning requirements can lead to more efficient and less costly construction permitting systems. They can help guarantee compliance with zoning regulations even before the permit-issuing agency receives the building permit application. This allows architects and engineers to finalize the building specifications with the knowledge that there will be no need to adjust them later in the process because of possible zoning issues.

TWO EXAMPLES OF GOOD PRACTICE

New Zealand and Guatemala both provide examples of well-implemented zoning systems. In New Zealand all municipalities have a detailed, up-to-date zoning plan that has been approved through a participatory process and supports an efficient construction permitting system. And in Guatemala planning authorities in the capital city recently switched to a mixed-use land planning system and digitized the zoning maps—all in the span of

just 5 years. Construction activity has increased substantially under the new zoning system in Guatemala City.

New Zealand—an efficient and predictable process

New Zealand illustrates the use of municipal planning and zoning as a tool to facilitate the construction permitting process. Its planning and zoning regulations are among the world’s most efficient. They are comprehensive, predictable and streamlined in implementation.

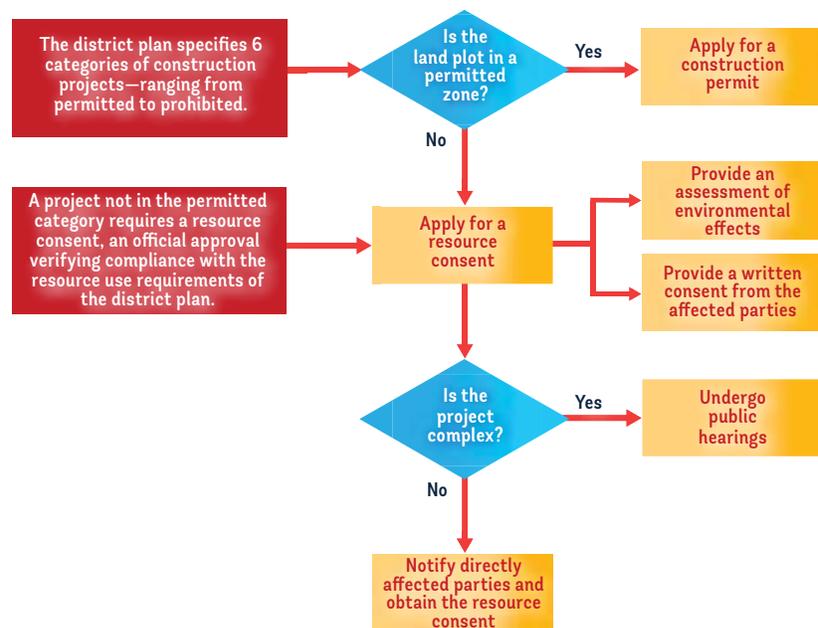
New Zealand uses 2 main types of planning documents: regional plans and district plans. Regional plans specify general requirements, such as air and water quality and the use of coastal areas. District plans are detailed planning guidelines that outline the specific land use and design requirements for builders.

The district plans are legally binding, cover the entire usable land in a

municipality and are periodically reviewed to ensure that they reflect the changing urban needs. Each district plan is approved through a participatory process in which the district council holds public hearings to allow residents to submit suggestions or objections. Once the residents’ comments have been processed, the plan becomes “operative”—as a statutory document that regulates land development activities for the entire municipality.

This means that all municipalities in New Zealand have a detailed, up-to-date zoning plan in place that has been approved through meaningful public involvement. The plan provides investors and developers with a reliable reference to guide them in the design and conceptual stage of a project, before they apply for a construction permit. And it provides municipal authorities with a consistent basis for approving or rejecting construction permits, with little discretion involved (figure 6.3).

FIGURE 6.3 New Zealand’s district plans support an efficient, predictable process for construction permitting



Source: “An Everyday Guide to the Resource Management Act Series 1.1: Getting in on the Act,” New Zealand, Ministry of Environment, <http://www.mfe.govt.nz/publications/rma/everyday/overview/>.

TABLE 6.2 Zoning classifications in Guatemala City's new land management plan

| Zone | Share of total land in Guatemala City (%) | Primary use of zone | Share of buildings in zone that can be residential (%) |
|------------------|---|---|--|
| G0—natural | 18 | Natural reserve areas where residential buildings are not allowed for environmental reasons and because of high risk levels | 0 |
| G1—rural | 20 | Areas that are still rural or agricultural with an intermediate level of risk, where low-density residential buildings are allowed though preservation of the environment is a priority | 75 |
| G2—semiurban | 9 | Areas where low-density buildings in closer proximity are allowed but because of location or topography, preservation of the environment is a priority | 75 |
| G3—urban | 37 | Areas that comprise most of the city's currently urbanized area, including a medium density of single-family and multi-family dwellings | 50 |
| G4—central | 13 | Areas with a high density of mid-rise buildings, where most of the land has been developed and open spaces have been converted into public parks | 35 |
| G5—núcleo (core) | 3 | Areas with a high density of high-rise buildings and towers, where most of the land has been developed and open spaces have been converted into public parks | 25 |

Source: "Plan de Ordenamiento Territorial," Municipality of Guatemala City, http://pot.muniguatemala.com/docts_soporte/07_procedimientos_pot.php.

Municipalities face official time limits for making a decision—20 working days for simple cases and 4 months for more complex cases that involve public hearings. According to *Doing Business* data, most complex cases are processed in 100 days.

There are 3 main factors behind the efficient processing of construction permits in New Zealand in cases where a change in zoning is necessary. First, there are clearly defined steps for modifying a zoning plan (that is, obtaining a resource consent), requiring different levels of review depending on the complexity of the project. A resource consent is not required if the proposed construction is already in a permitted zone. Second, there are objective criteria for municipalities to use in making a decision to approve or reject a construction proposal—an assessment of environmental effects and a written consent from affected parties. And third, there are official time limits

for completing each procedure related to obtaining a resource consent (zoning modification) or construction permit.¹²

Guatemala—a recent success story

Until 5 years ago Guatemala's capital city had a weak zoning system with no digital zoning maps. In January 2009, however, the Municipality of Guatemala City adopted a new land management plan that established land use classifications based on 10 objectives:

- Encourage access to housing and diversify its supply
- Promote high-density construction where there is an adequate transport network
- Limit construction in high-risk areas and protect natural and historically significant areas
- Ensure public participation in local land use planning
- Ensure compatibility in the use of buildings in close proximity
- Encourage mixed land use

- Create public spaces with high urban vitality
- Promote an interconnected road network
- Provide certainty to owners and investors, including by promoting the desired urban development practices through incentives
- Secure the necessary resources for municipal investment

While the old system had divided the land into industrial, residential and commercial zones, the new one established zones according to the general use of land, a change that included introducing mixed-use zones. The city was divided into 6 main zones that range from rural to more urban (table 6.2).

The municipality developed the new plan in consultation with both the private and public sector and widely publicized it. The zoning maps have been digitized over the past 5 years, and the process is now complete for the entire city. Builders can access the maps through an online link to verify that a planned building is in compliance with the city's zoning system before applying for a building permit.¹³

The new zoning system has shown positive results, including a substantial increase in construction activity, a welcome development given pervasive shortages. The square meters of construction authorized by Guatemala City's one-stop shop for construction permitting almost doubled in the first few years, rising from 1.1 million in 2009 to 2.08 million in 2013.¹⁴ And the municipality expects to authorize 2.2 million square meters by the end of 2014.

But implementing the system was not without its challenges. Some citizens felt that the government was regulating what they could do with their own land. And many objected to the notion of mixed land use, fearing an increase in negative externalities such as noise and traffic in residential areas. In introducing

mixed land use, however, the municipality was seeking to address both traffic issues, by reducing the need for long commutes, and security concerns, by ensuring that all neighborhoods would have activity throughout the day.

CONCLUSION

Without properly implemented zoning systems, urban planning becomes difficult, as does ensuring the proper uses of land and mitigating environmental concerns. Recognizing the importance of zoning and urban planning, many economies have adopted zoning systems to varying extents. These economies require builders to obtain some form of zoning or urban planning approval before building or even before obtaining a construction permit. These requirements can lead to more efficient and less costly construction permitting systems.

NOTES

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1. World Bank Group, Investment Climate Department 2013.
2. Moullier 2009.
3. De Soto 2000.
4. KPMG 2009.
5. Grannis 2011; Neumann 2014.
6. Grannis 2011.
7. Schaffner and Waxman 2009.
8. Crone 1982; Karkkainen 1994.
9. In-depth interview with an expert in the Stockholm Planning Department conducted by the *Doing Business* team on December 5, 2013; Hüfner and Lundsgaard 2007.
10. "Planprocessen," City of Stockholm, <http://www.stockholm.se/TrafikStadsplanering/Stadsutveckling/Stadsplanering/Planprocessen/>.
11. Swedish National Board of Housing, Building and Planning 2013.
12. For more information on New Zealand's zoning system, see the chapter on urban planning and construction permitting in World Bank (2014b).
13. Zoning maps are available on the website of the Municipality of Guatemala City at <http://vu.muniguate.com/index.php?id=14&opc=10>.
14. Statistics provided by the Municipality of Guatemala City.