



# The Governance of Land Use

## Policy Highlights



## Acknowledgements

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## INTRODUCTION

Land use affects individual and collective wellbeing and is a critical factor in meeting the overarching goals of environmental sustainability, economic growth and social inclusion. Public policy primarily uses spatial and land use plans and environmental and building code regulations to affect land use. These instruments restrict how land can be used, but cannot influence how individuals and businesses would like to use land. They can also take a long time to elaborate and even longer to effect change. Often, they leave little scope for efficient, community and market driven land use patterns to emerge.

Many other policy instruments—beyond those within the domain of land use planning systems—create incentives to use land in specific ways. Frequently, these incentives do not correspond to the objectives of the land use planning system. For example, many countries aim to limit urban sprawl, but provide financial incentives for the construction of single-family homes. Consequently, much more restrictive planning regulations are necessary to reduce sprawl. In many cases, planning systems

simply fail to achieve their objectives due to overwhelming pressures from contradicting land developments.

Currently, fiscal instruments are used too little to influence land use. Take for example transport policies. The most important cause for the emergence of suburban sprawl in the 20th century has been the declining cost of car use. Public policy has played a major role in this decline and still influences the cost of using cars through a complex system of taxes and subsidies. Reducing the subsidies to car use and increasing taxes on it—for example by implementing congestion charges in large urban areas—can go a long way towards fostering more compact patterns of development.

To provide the right incentives, a broader range of policies and, in particular, fiscal policies, needs be used to affect land use. This requires greater efforts co-ordinate policies between sectors and levels of government. Already today, land use policies are often co-ordinated across policy fields, such as environment, transport and housing. In the future, this co-ordination will have to intensify and should include finance ministries. Further, all levels of government, from national to local, have to work more closely together to develop effective land use policies.

This Policy Highlight shares key findings and recommendations from the Regional Development Policy Division's work on the governance of land use. This work is based on: an overview of formal land use planning systems across the OECD; an analysis of the relationship between land use planning systems, property tax revenues and land use patterns; and case studies OECD countries (Poland, France, The Netherlands, and Israel).



## LAND USE DETERMINES HEALTH, ENVIRONMENTAL, SOCIAL AND ECONOMIC OUTCOMES

Land use affects the environment, public health, economic growth, the distribution of wealth, social outcomes and the attractiveness of cities and towns. Land use practices have major consequences for climate change mitigation. Land use has been linked to approximately one third of all man-made CO<sub>2</sub> emissions. Land use also influences air pollution and determines whether or not cities are walkable. In turn, both factors affect public health.

Extrapolated from estimates for six OECD countries for which data exists, land and the buildings on it constitute 86% of the total capital in the OECD and have a value of approximately USD 249 trillion. Given the very high aggregate value of land and property, even small changes in valuations have major consequences on the distribution of wealth. As land and property is predominantly owned by wealthier and older households in OECD economies, any increase in land prices tends to benefit these groups at the expense of younger and poorer households. In fact, evidence suggests that a large part of the rising wealth inequality in recent decades can be explained by rising land and property prices.

Last but not least, land use matters because people are attached to land. Whether or not cities and towns are considered attractive depends to a large degree on how land is used. Land creates a sense of belonging and land use is closely linked to many cultural aspects in peoples' lives. In light of the importance of land, it is not surprising that

land use policies tend to be contentious and that conflicts over land frequently emerge.

## THE GOVERNANCE OF LAND USE IN OECD COUNTRIES

*Land use planning needs to balance public and private interests...*

Private and public interests related to land have to be balanced. Land use decisions by an individual land owner inevitably affects other people. For example, if an industrial complex is built at a lakeside, it reduces the amenity value of the lake for all people who use other parts of the lakeside as a

**USD 249 000 000 000 000 –  
the approximate value of  
land and buildings in the  
OECD**





recreational area. In other cases, these so-called externalities related to land can be positive. An attractive open space in a new private development in a city centre may attract customers that also benefit retailers located nearby.

### One third of all man-made CO2 emissions since 1850 are due to changing land uses

Whether positive or negative, land owners tend to not consider externalities in their decisions. In many other policy fields, public policy should respond to such a situation by implementing taxes that discourage actions with negative externalities and subsidies that encourage actions with positive externalities. However, the consequences of each land use decision are very context specific and it is im-

possible to develop a general system of taxes and subsidies that would provide the desired incentives in each case. Instead, case-based regulatory decisions have to be made that weigh the interest of land owners in developing their plots against the desire of the general public for developments that are beneficial to surrounding areas. In other words, planning has to balance private and public interests.

### *...and ensure efficient patterns of spatial development*

Planning is also needed to co-ordinate public and private investment decisions. Since it is difficult to change land use once land is built-up, development needs to be co-ordinated in advance. Otherwise, inefficient patterns of development may occur. On a small scale, this could include the construction of low-density development around a transit hub, which at a

later point prevents densification. On a larger scale, this could entail offices being built far away from public transport nodes, thus leaving the public transport system operating below capacity while creating congestion on roads, or residential housing built next to an airport, thus limiting the potential for future expansion of the airport.

In the absence of intervention, poor spatial outcomes will occur. They may include a lack of infrastructure and amenities, areas of concentrated poverty and incompatible land uses in close proximity to one another such as polluting industry mixed with housing. Plans co-ordinate individualised decisions about where to live, work, grow food and manufacture products. Given this role, planners need to navigate diverse interests about how to use land, both now and in the future. They need to balance multiple

objectives such as economic competitiveness, environmental sustainability and social inclusion; in other words, “the planners’ triangle”.

Even though land use planning is primarily a local task and concerns local issues, it has consequences for issues of national and global importance: the long-term stability of ecosystems, social justice, food and energy security, long-term economic growth, housing costs, and the mitigation of and adaptation to climate change. Planning also has a crucial role to play to accomplish six of the 17 UN Sustainable Development Goals. They include calls for access to energy, the construction of resilient infrastructure, inclusive cities, climate change mitigation, sustainable use of oceans, and protection of ecosystems.





strategic plans and policy guidelines with spatial implications to co-ordinate the territorial development of an entire region or of the whole nation. Sometimes these policies are binding and local plans are required to follow them, sometimes the guidelines provide only directions for lower-level plans. There are of course substantial differences among countries. In some countries, the national government enforces policies to regulate planning at lower-levels; in others, it is the regional authority that regulates spatial planning; in some others, land use powers are decentralized and local authorities have complete control over land use decisions.

***Land use planning is generally decentralised to local governments***

Land use planning is mostly the purview of local governments across the OECD. This can be explained by its characteristics. Land use planning is place-based by definition and highly context-specific. For instance, rural communities face very different issues than urban ones. As a consequence, land use planning requires a high level of information on local conditions. Higher levels of government often do not have this information to the degree that local governments do.

Local authorities adopt detailed land use plans that contain zoning regulation and use other ordinances to regulate land use. Usually, local governments also prepare more strategic plans to address land use decisions. In most countries, higher levels of government develop



### ***Land is governed by formal and informal institutions***

Across OECD countries there are spatial policies and land use plans at multiple scales—national, regional, and most importantly, local—that set out how land uses should be decided and acted upon. Beyond spatial policies, land is governed by legislation that determines the rights associated with it, such as property rights and expropriation rights, and also the obligations associated with its use. These structures of governance often look quite similar across OECD countries. Upper level governments generally provide the framework laws that set out the planning system and enact environmental legislation while local governments make decisions about detailed land uses.

In practice, the governance of land use can vary greatly, even within countries, let alone among them. Much depends on how local governments co-operate or compete with one another on land use issues, the types of pressures cities and communities face due to such factors as population growth or decline, the types of actors involved in land use governance and even the levels of social trust in a society, which affects relationships between and among residents, businesses, governments and non-governmental groups. In some places, there is a wide range of informal partnerships between the many actors involved in the governance of land use, while in others, there is a distinct hierarchy between levels of planning, and the institutions involved operate on the basis of statutorily defined roles.

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## KEY FACTS ON LAND USE PLANNING SYSTEMS

- National governments and regional governments focus primarily on strategic planning and the provision of policy guidelines. Land use planning is predominantly a local task, even though several countries use guiding land use plans prepared at the regional or inter-municipal level. With the exception of Israel, national governments in the 32 surveyed countries do not prepare land use plans for the entire territory of a country, but are sometimes responsible for the preparation of land use plans for areas of particular importance.
- Dedicated metropolitan plans to ensure policy co-ordination in densely populated urban areas are rare. In some countries, regional plans play an important co-ordination role at the metropolitan scale.
- In all unitary countries except Italy, national governments adopt the framework legislation that structures the planning system. In federal countries, this task is predominantly situated with the federated states. In practice, the consequences of this distinction are small. Few unitary countries tend to have entirely homogenous approaches to planning for their territory, while the federated states or regions within a federal country tend to adopt similar framework legislation. For the character of a planning system, the degree of local autonomy seems to matter more than the degree of regional autonomy.



***Flexible approaches are needed in order to react in a timely and creative way to emerging challenges***

The traditional statutory instruments of land use planning can take a long time to be elaborated and even longer to have an impact. In places where quick responses to changing conditions are needed—for example, due to rapid population growth—they are much less effective. Therefore, many OECD countries have adopted extraordinary measures when they seek to quickly implement new developments. For example, in Poland, Special Infrastructure Acts suspend common planning law for key projects. But the planning system itself should have the instruments to respond to key issues when needed.

More flexible approaches to land use planning can meet this need. They can be structured in a number of different ways. For

example, they might entail the establishment of specific zones in a community which are more open to experimentation and temporary uses. With greater planning flexibility there are fewer rules about how land is used and each project is judged on the basis of its own merit, typically framed by overarching guidelines and objectives about community needs and aspirations. Under such systems, more effort needs to be put in upfront in order to

**Greater flexibility can make the planning system more responsive to new challenges**

collaboratively define projects and reach consensus between investors, developers, governments, residents and other actors. If this is done well, it can breed experimentation and innovation and respond in a more timely way to emerging trends and needs. An important

caveat is that more flexibility should not be embraced everywhere. For example, historical districts and environmentally sensitive areas need more stringent rules than transitional spaces such as brownfield sites. Flexible planning systems should differentiate

places according to their need for protection and differentiate planning procedures accordingly.

In order to implement more flexible planning systems, a high degree of capacity is needed at the local level, since a broader range of considerations has to be taken into account in the decision making process. Further, decision-makers have to be accountable and need to be trusted by the public in order to ensure that land use decisions are accepted, even by those who would prefer different outcomes. As discussed below, flexible systems also need effective monitoring and evaluation in order to ensure that key objectives are achieved.

Greater flexibility in planning systems should not lead to the circumvention of regular planning and appeal processes. All planning should occur through regular planning procedures. It must also be subject to timely and adequate oversight by the legal system. If regular planning and appeal procedures are considered inadequate to deal with specific



developments, it is preferable to reform these procedures instead of implementing exceptional planning measures.

***Restrictive zoning regulation and single-use zoning should be avoided***

Restrictive zoning rules and in particular single-use zoning are among the most important factors contributing to inflexible planning regulations. Zoning should be sufficiently flexible to give private actors leeway to shape development and to allow neighbourhoods to change over time. The same considerations apply to planning decisions in countries that employ more discretionary systems of planning and do not rely on zoning regulations. In these countries, the possibilities to obtain planning permissions should become more flexible.

To allow more flexibility, zoning regulation and planning decisions should target nuisance levels. In general, all uses that create fewer nuisances than the maximum level specified for a zone should be permitted. Single-use zoning should be avoided except

for specific purposes (e.g. hazardous industrial areas) and mixed-use developments should be permitted as a default. Density regulation should not prohibit specific building classes, such as multi-family homes, but instead use less restrictive parameters such as floor-to-area ratios. If maximum density restrictions are used, they should generally allow a gradual densification of neighbourhoods in line with infrastructure capacity and population growth.

***Land use regulations should not restrict competition between businesses***

Land use regulations are often structured to protect the interests of incumbent firms by restricting the possibilities for new businesses to enter markets. Entry restrictions reduce competition and benefit incumbent businesses at the expense of consumers, who end up paying higher prices for goods and services. In particular, adverse impact tests that allow new businesses to enter markets only if incumbents are not harmed should not normally be used. Potential exceptions to this rule are restrictions to large retail developments to ensure lively

and attractive town centres, which are public goods. If entry restrictions are used for this purpose, their costs and benefits should be carefully evaluated and they should be scrutinised to prevent them from being abused to limit competition beyond their actual objective.

Further, governments should not permit the use of private covenants on land that aim at stifling competition. Such covenants restrict the use of land for specific activities. Typically, they are imposed by retailers that sell land in order to prevent it from being used by competitors. They allow retailers to create local monopolies by buying land strategically and selling it on with covenants restricting its use.

***Flexible planning must come along with the right incentives for land use to be successful***

Increasing the flexibility in the planning system inevitably implies that planners exert less direct control over land use. Without complementary measures, this would increase

## KEY FACTS ON LAND USE PLANNING SYSTEMS

- All levels of government use spatial and land use plans as instruments to shape land use. In total, the OECD Land Use Governance Survey has identified 229 different *types* of plans. These different types of plans are roughly equally divided between plans prepared at the national level, regional level and local level.
- Spatial and land use plans are among the most important instruments used in land use planning. They are ubiquitous. Many of them are prepared in hundreds or even thousands of regional and local jurisdictions and in some countries, local governments prepare many different plans of the same type for different areas. The total number of individual spatial and land use plans in the OECD is at least many tens of thousands and probably several hundreds of thousands.

## KEY FACTS ON LAND USE PLANNING SYSTEMS

- Major reforms that completely change the character of the planning system are rare. Half of all planning systems in the OECD were established before 1979 and in three countries, they were established before 1940. Nevertheless, planning practices changed strongly in many countries, indicating that many systems offer a considerable degree of flexibility if this is supported by all actors involved.
- Co-ordination mechanisms between levels of government and across sectors are common and consultation procedures exist in most OECD countries. However, often co-ordination aims at achieving a minimum degree of consensus and lacks a forward-looking strategic component.
- Formally, stakeholder involvement in planning processes is very similar in most OECD countries, focussing primarily on a public consultation process. In practice, the differences between countries concerning the influence of stakeholders on the planning process appear greater than could be suspected given the formally similar procedures.

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the risk of uncontrolled development, potentially leading to undesired outcomes such as more sprawl, inefficient transport systems and incompatible land uses in close proximity. As greater flexibility imposes fewer restrictions on land use, it is essential that private actors can be compelled to pursue desirable patterns of development out of their own interest. This requires that they face the right incentives.

Many public policies provide incentives for land use. At the moment, these incentives are rarely used to influence land use actively. Increasing the flexibility of planning systems and still achieving desired spatial outcomes requires that public policies are more effectively used to set the right incentives. In particular, fiscal policies, which are currently considered to be outside the domain of spatial and land use planning, must be used more effectively.

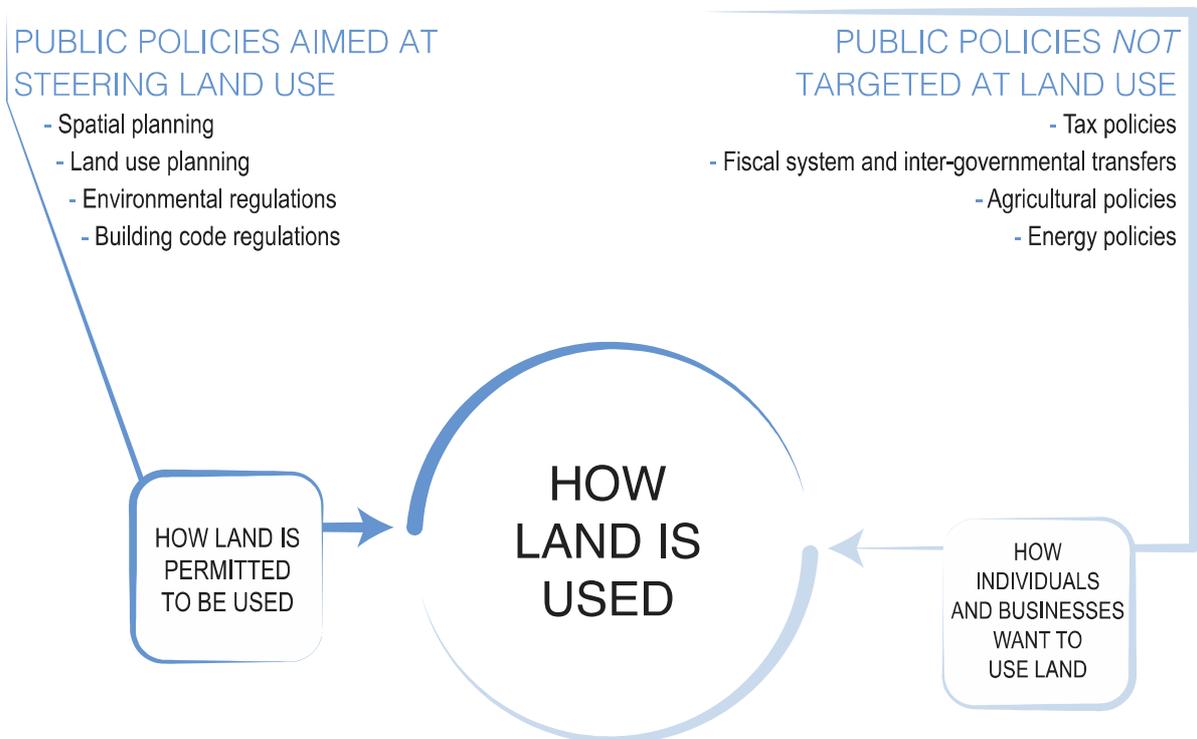
## A WIDE ARRAY OF PUBLIC POLICIES - SPATIAL AND OTHERWISE - AFFECTS LAND USE

*Instruments designed to affect land use rely primarily on restrictions how land can be used*

At present, public policy uses primarily two mechanisms to intentionally influence land use; it allocates public investments across space and it restricts how individuals and businesses are permitted to use land. Its main instruments are the spatial and land use planning process and environmental and building code regulations. Effective land use governance should also consider a third channel through which public policies influence land use; the incentives that public policies provide to individuals and businesses.

Planning primarily uses restrictions on land use as instruments because it has few tools to influence how individuals and

## HOW SPATIAL AND NON-SPATIAL POLICIES AFFECT LAND USE



businesses want to use land. As a consequence, it has to rely on restricting the possibilities for development, i.e. it makes it impossible that the demand for some form of land use is met by corresponding development. While such supply restrictions may ensure that specific land uses at specific locations do not occur, they cannot change the underlying demand for them and may increase the pressure for development at other locations.

While the planning system can do little to shape the incentives of individuals and businesses, other public policies can. Governments in all countries employ a wide range of policies that affect how individuals and businesses use land. Thus, many of the so-

called market forces that the planning system takes as given are in fact caused by public policies to which individuals and businesses respond. These policies should be harnessed to influence the demand for development more effectively.

***Greater attention should be paid to policies outside the domain of spatial and land use planning***

Ideally, countries should use the potential of public policies – in particular tax policies – to provide incentives as a tool to steer land use. At a minimum, it should be ensured that public policies outside the domain of spatial and land use planning do not run against land use related objectives. In a more

comprehensive setting, the incentives provided by public policies can be used to steer land pro-actively. Public policies can incentivise private actors to pursue developments that are more closely aligned with land use objectives. As a result, land use regulations could become more flexible, while at the same time being more effective in achieving their objectives.

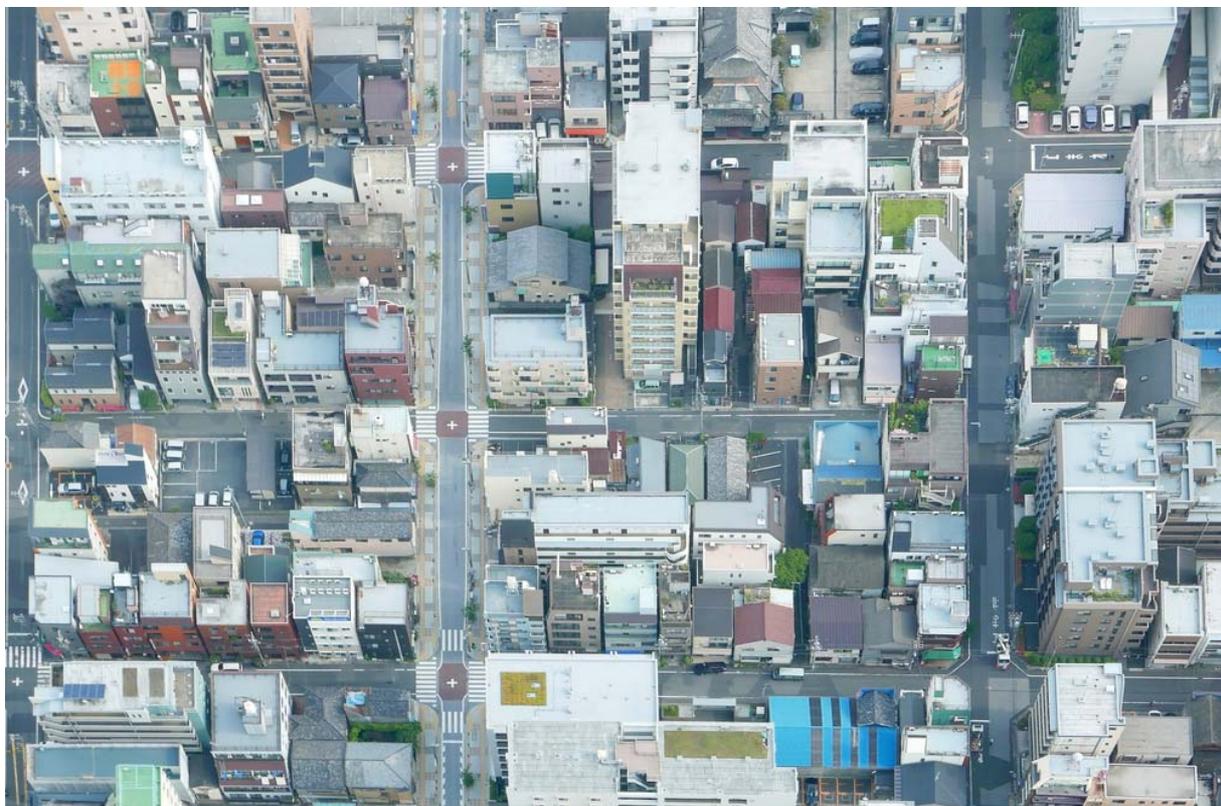
## **WELL-DESIGNED TAX POLICIES ARE CRUCIAL FOR ACHIEVING SPATIAL OBJECTIVES**

### ***Tax policies provide incentives how to use land and affect patterns of development***

Private land use decisions are always the result of cost-benefit considerations, even if they occur unconsciously and include a wide-range of non-monetary factors. Tax policies

play a crucial role in them, because they influence both costs and benefits of land use. The potential of tax policies as instruments to steer land use comes from the fact that taxes have varying effects on costs and benefits of land use at different locations—even if they do not contain an explicit spatial dimension. For example, high fuel taxes make it more costly to use land in locations that necessitate a long commute and thereby provide incentives for more compact and transport-oriented patterns of development.

In some cases, the incentives provided by tax policies are aligned with spatial objectives but in many other cases they act against the objectives of the planning system. For example, almost all OECD countries aim for compact urban development, but some countries tax ownership of single-family homes preferentially compared to other





residential property. Inevitably, this encourages low-density single-family home development. Likewise, commuting expenses are tax deductible in 12 of 26 analysed OECD countries. Since this reduces the costs of car use, it incentivises residents to live further away from their place of work, thereby encouraging sprawling developments.



Removing such perverse incentives should thus be a first step in making better use of the tax system to achieve land use objectives.

***Transport taxes should be used to encourage compact development***

Declining transport costs (in monetary and non-monetary terms) are the most important factor explaining the emergence of urban sprawl in the 20<sup>th</sup> century. As transport costs decline, people have fewer incentives to live close to work and other places where they have to go on a daily basis. Governments have played a major role in this trend. Most importantly, they have constructed the road network because they use a variety of direct and indirect taxes and subsidies to affect the costs of transport.

Taxing transport and especially car use more heavily to reflect its true costs (including externalities from driving such as air pollution, congestion and noise) would lead to less spread out patterns of urban development.

## KEY FACTS ON LAND USE PLANNING SYSTEMS

- The enforcement of land use regulations is good in most OECD countries and the amount of illegal construction has declined. A more important challenge in most countries is how to ensure that national objectives are represented in local land use regulations. In this respect, the question of how to provide clear and unambiguous regulations, while at the same time leaving lower levels of government and private actors sufficient flexibility is important, yet frequently unresolved.
- Value capture instruments are designed to capture private windfall gains related to land. They are potentially an important instrument to raise public funds and to improve the equity of public planning and investment decisions. Although they are common throughout the OECD, their fiscal impact is small and only small sums are raised through them.
- The expropriation of land for the construction of infrastructure is possible in all OECD countries and usually does not present major difficulties from a legal perspective. Whether land can be expropriated for other purposes including privately-led developments varies from country to country.

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Depending on the circumstances, a variety of instruments can be used to affect the costs of transport. Higher fuel taxes increase the costs of car use throughout countries. If only specific urban areas should be targeted, congestion charges are suitable instruments that have been pioneered successfully in several major cities in OECD countries. Parking charges also reduce driving in urban areas and have the associated benefit that they discourage the use of valuable urban space for parking, which is frequently under-priced relative to its true social costs. Parking charges are also one of the few fiscal instruments that are under control of local governments in many OECD countries and can therefore be increased by them comparatively easily.

Obviously, transport related fiscal policies are complementary to other policies, for example improvements to the public transport system and increased efforts at densification. Complementary measures are necessary to ensure that residents have the possibilities to react to new incentives by changing their behaviour. In other words, complementary policies are needed to provide residents with alternatives to driving long distances.

**The tax system provides  
important incentives for land use  
decisions by businesses and  
individuals**

### ***Property taxes can be effective instruments to steer land use***

Governments should use property taxes more effectively to affect land use. Currently, property taxes are often too low to provide strong incentives. In places where they are sufficiently high to make a difference, they usually do not differentiate between land uses that are desirable and land uses that are undesirable. Greater differentiation of property taxes to encourage desirable developments can make them an effective instrument for steering land use. While differentiated property taxes can influence land use, their use for this purpose is not without caveats. They should be clearly-structured so that they cannot be used to treat politically well-connected developers and land owners preferentially. Further, they need to be carefully designed so that individuals cannot “game the system” by, for example, misrepresenting the true use of a property.

If governments aim to encourage efficient land use within urban areas, they may also consider the introduction of a pure land value tax, which provides particularly strong incentives for an efficient use of the most valuable land. In contrast to property taxes, a pure land value tax does not tax sparsely built-up land less than densely built-up land. Thus, it makes it unprofitable to use expensive land at low densities and encourages densification especially in the centres of the most expensive cities. Whether to prefer land value taxes or property taxes also depends on other considerations. For example, a land value tax is a less comprehensive tax on wealth than a property tax.

### **Fiscal instruments should be used more frequently to steer land use**



In contrast to property taxes, property transaction taxes prevent efficient and sustainable land use and should be avoided. By making property transactions more costly, they create market frictions and slow-down adjustment processes. As a consequence, they make it less likely that land is used optimally, for example, by preventing families from moving into smaller dwellings once children leave home or by making it more expensive for new home buyers to enter the housing market.

### ***Fiscal instruments dedicated to steering land uses are underused***

In addition to fiscal instruments that affect land use without targeting it, a wide range of fiscal instruments exist that have the purpose of affecting land use. Brownfield redevelopment incentives, transfers of development rights and historic rehabilitation tax credits are some of the instruments that frequently exist, but are not used to their full

potential. The legal framework of many OECD member countries includes at least some fiscal instruments to steer land use, but they are rarely used to a degree that makes a relevant difference. Nevertheless, they are effective instruments and governments should make more frequent and intense use of them.

A particularly important but underused group of land use related fiscal instruments are value capture tools. They are attractive on equity grounds because they target windfall gains from land and form a largely untapped source of funds for infrastructure investments. Furthermore, value capture instruments can make it possible to build welfare-enhancing infrastructure that would not have been constructed to otherwise due to funding constraints. Similar to other fiscal instruments related to land, the legal basis for value capture tools exists frequently, but they are not used to raise significant funds. Even though they are not widely used, value capture instruments have the potential to contribute to a much

needed increase in available funds for infrastructure investments.



## SUBNATIONAL FISCAL SYSTEMS AFFECT PLANNING POLICIES OF LOCAL GOVERNMENTS

### *Local governments respond to fiscal incentives*

Different land uses create different costs and revenues for local governments. The fiscal effects of land uses on local budgets depend on the fiscal system of a country. In some countries, local governments benefit fiscally from new developments because it increases their tax base or their share of transfers disproportionately. In other countries, new developments are revenue neutral or may even create net costs for local governments if they have to provide infrastructure and services without receiving corresponding taxes or transfers. Usually, also the fiscal effects of different types of development vary. For example, if local governments are funded primarily through a local business tax, commercial developments are fiscally attractive. In contrast, if they are funded



through local incomes taxes, developments that attract high-income residents create more revenues.

Local governments respond to fiscal incentives by implementing planning policies that favour fiscally attractive types of developments. While such a response can be optimal from the perspective of a local community, it can create inefficient land use patterns in aggregate. It may result in situations in which planning decisions are not based on the demand for different types of land, but based on the fiscal preferences of local governments.

The higher the fiscal net-benefits are that local governments receive from development, the more likely they are to favour extensive patterns of developments and the less likely they are to consider its negative impacts, for example on the environment. Likewise, in countries where local governments do not receive any benefits from more development or even face net-costs, they may not permit sufficient development, especially if local populations are sceptical about it. This can result, for example, in a housing shortage and may explain why planning policies in some countries are very restrictive despite increasing housing costs. If local governments receive a disproportionately large share of taxes or transfers from one type of land use, they have incentives to favour this land use over others in their planning policies. As a consequence, land use regulations may lead to an over-supply of land for one use at the expense of other uses. This creates distortions in land markets and economic inefficiencies.

### *Fiscal systems should provide balanced incentives to local governments*

National and regional governments should consider the incentives that their fiscal systems provide for planning policies of local governments. Ideally, fiscal systems should provide incentives that are in line with the spatial objectives of the higher level governments. If national or regional governments aim to constrain development, it should not be fiscally attractive to local governments and vice versa. Likewise, all types of development should have approximately equal fiscal effects on local



governments unless national governments want to systematically encourage a specific type of development.

## LAND USE REGULATION SHOULD RESPOND TO DEMOGRAPHIC AND ECONOMIC TRENDS



*Developed land is a small, but increasing share out of total land in OECD countries*

Developed land constitutes only a small share of all land in OECD countries. In most OECD countries, it is below 10% of the total land mass. Even in regions that the OECD defines as

National governments can provide more balanced incentives to local governments by reforming the system of subnational finance. However, such reforms are often politically sensitive and may not always be possible. Where they are not feasible or not desirable for other reasons, national governments may resort to introducing improved co-ordination mechanisms between local governments. For example, this may include the introduction of metropolitan bodies responsible for strategic planning. Importantly, to overcome the misaligned incentives to local governments, such a body would have to face different political cost-benefit considerations than individual local governments.

urban, the total share of developed land is usually below 20%. While the total amount of developed land is relatively small, its share has increased since 2000 in all countries—but at vastly different growth rates. Spain saw the highest growth rate in developed land of 17.7% over the following decade, followed by Iceland with 16.1% and Ireland with 11.5%. Not coincidentally, all three countries were severely affected by housing bubbles in the early 2000s. At the opposite end of the scale, Switzerland, Belgium and the UK have had the lowest growth in developed land with rates of 0.5%, 0.8% and 1.6%, respectively over the same time period. While all countries recorded growing areas of developed land, in almost half of the analysed countries the growth rate of developed land was lower than the population growth rate. In those countries, the area of developed land per capita declined,

implying that on a per capita basis, land use has become more sparing.

**Restrictive land use regulations increase housing costs**

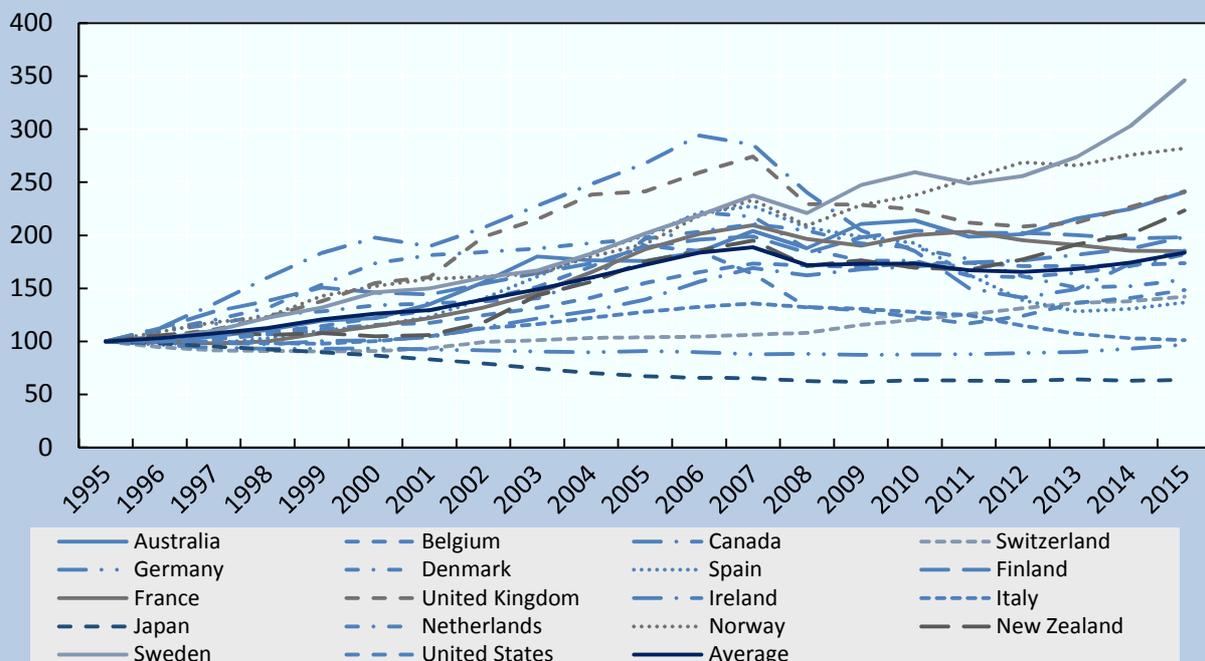
Inflation adjusted property prices have increased strongly in most OECD countries. Even the price corrections in the aftermath of the financial crisis in 2008 have proved short-lived and in many countries, prices are at new record highs. Restrictive land use regulations are one of the main causes of rising property prices. They restrict the supply of developable land and prevent densification in already developed areas. As a consequence, the supply of residential and commercial property cannot keep up with increasing demand stemming from growing populations and expanding economic activity especially in large urban areas. As generally happens when demand rises faster than supply, markets adjust through increasing prices.

Increasing property prices benefit property owners, who tend to be wealthier, at

the expense of renters, who are disproportionately poor. Thereby, they contribute to growing inequality and can lead to situations in which large parts of a city become too expensive for middle and lower-class households. Furthermore, high costs of housing also prevent people from moving into economically successful, highly productive urban areas, forcing them to stay in less productive regions. Estimates show that this can reduce national GDP by considerable margins.

In many places with high housing costs, the evidence suggests that the disadvantages of restrictions on development outweigh their benefits. Allowing more development would make cities more inclusive by decreasing the costs of housing, which would benefit the poorest residents the most. The construction of affordable housing is most effective to make cities more inclusive, but even market-driven housing development in higher price segments is likely to reduce housing costs for low-income households. An increase in housing supply in one price category causes

**INFLATION ADJUSTED RESIDENTIAL PROPERTY PRICES IN SELECTED OECD COUNTRIES (1995=100)**



substitution effects that eventually lead to a decline in housing costs across all price categories.

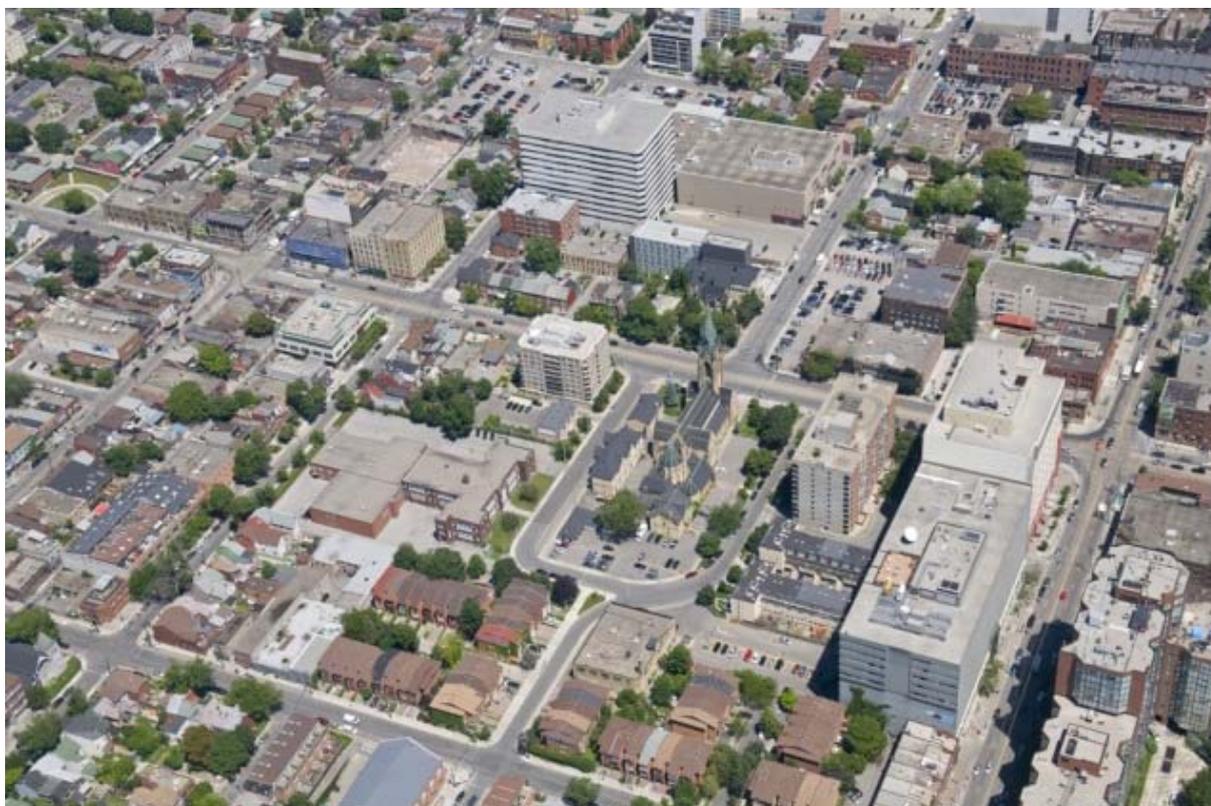
Increasing the supply of housing would also allow the most productive cities to attract more residents. Currently, the high costs of housing constrain many people from moving into the most productive cities and therefore force them to work in places where they are less productive. An increased supply of housing in economically successful cities would allow more people to work in these cities. Since this raises their productivity, it would also lead to higher economic growth at the national level.

***Land use regulations need to react to growing demand for housing***

Land use regulations should regularly be

assessed for their impact on housing costs. Since the cost-benefit ratio of land use restrictions deteriorates with increasing housing costs, the continued suitability of development restrictions should be progressively re-assessed if housing costs increase.

If land use restrictions limit the growth of housing to a rate that is lower than the growth rate of households, housing costs are likely to rise. In order to prevent upward pressure on housing costs, the annual increase in housing units in an urban area should be at least as large as the increase in the number of households. In order to reduce housing costs effectively and permanently, the number of newly constructed housing units should be higher than the number of new households. Ideally, new housing development should occur through a mix of densification and brownfield development. Where undeveloped



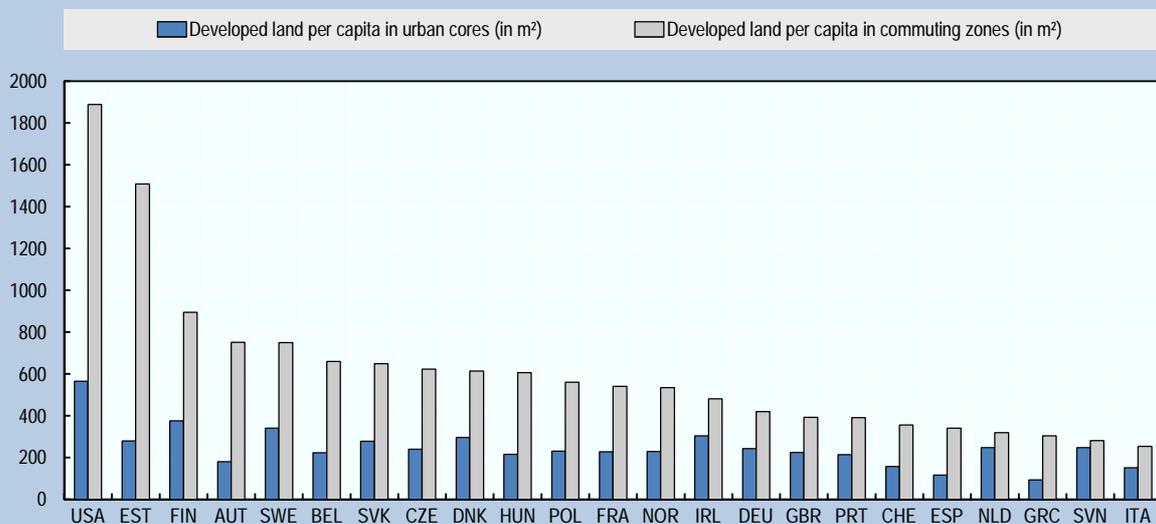
land is being developed, development should be compact and transport oriented. In order to ensure the inclusiveness of cities, public policy should ensure that housing is built in all price categories.

**Densification should be encouraged to create sustainable cities**

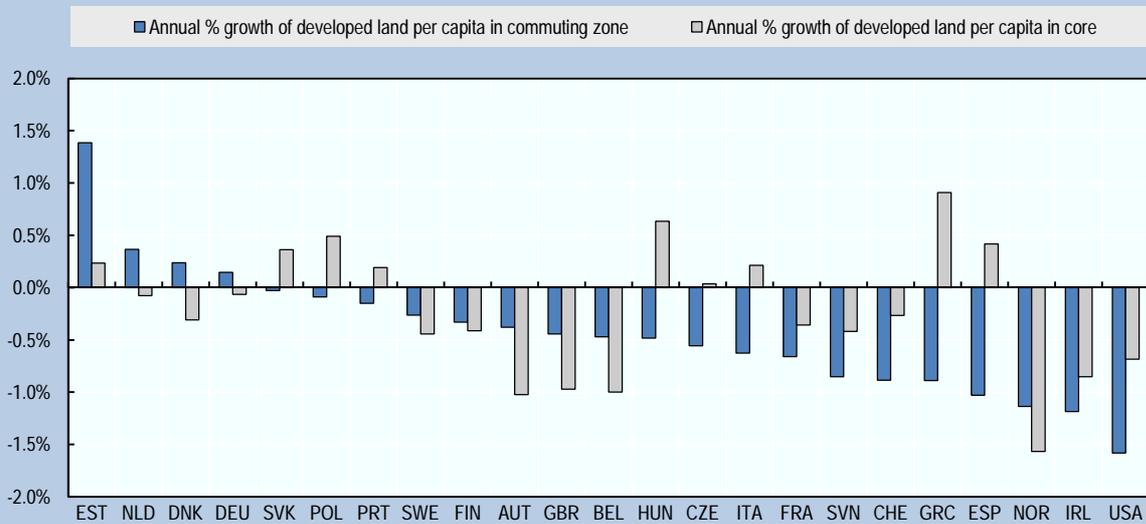
Greater effort is needed to permit and encourage densification. Despite growing populations and pressures on the housing market of many cities, little densification has occurred in recent decades in most urban areas in the OECD. At the same time, growing urban populations imply that areas that were once in the outskirts of cities are now part of the urban cores. Nevertheless, they are often not much denser than at the time when they were first developed. As urban form does not correspond to the changed demographic realities anymore, it becomes more difficult to achieve the ambitious objectives that many cities have set themselves for the transition from car-based transport to public transport.

At a minimum, densification should be made possible by easing land use restrictions that prevent it. Currently, restrictive zoning regulations and planning decisions limit the possibilities for densification in many cities and often make it impossible in entire neighbourhoods. They include explicit density restrictions (for example through floor-to-area ratios) and implicit density restrictions (for example minimum lot-size requirements and restrictions on multi-family homes). Easing density restrictions is most important in low-density areas close to city centres and along public transport corridors, but gradual densification should be permitted throughout most parts of an urban area. More proactive policies to foster densification can include the introduction of transferable development-rights and incentives for compact development on brownfield sites. As residents often oppose densification in their neighbourhoods, solutions have to be found to increase public acceptance of increased density. Otherwise, the aforementioned policies may remain politically infeasible.

**DEVELOPED LAND PER CAPITA IN URBAN CORES AND COMMUTING ZONES**



## GROWTH RATES OF DEVELOPED LAND PER CAPITA IN CORES OF COMMUTING ZONES OF FUNCTIONAL URBAN AREAS WITH MORE THAN 500 000 INHABITANTS



### ***Land consumption in shrinking regions should be reduced sustainably***

Once land is developed, it is rarely turned back into an undeveloped state. More than 350 regions across the OECD have experienced declining populations since 2000, but this rarely translates into a conversion of developed land into an undeveloped state. Across the OECD, the vast majority of regions (90%) with declining populations between 2000 and 2012 did not see a decrease in the amount of developed land. Of those regions that experienced declines in the area of developed land, more than half were located in eastern Germany.

Shrinking regions should reduce their land consumption sustainably. A failure to return developed land into undeveloped states has two negative consequences. First, it contributes to overall increasing land

consumption with the associated negative environmental consequences. Second, it increases the costs of infrastructure maintenance on a per capita basis, since the same amount of infrastructure has to be maintained for a smaller population. Thus, it further reduces the fiscal viability of cities and regions that are already under fiscal pressures due to unfavourable economic conditions. More efforts are needed to develop efficient and equitable solutions to return urban land into undeveloped states.

### **GREATER INTEGRATION OF LAND USE POLICIES ACROSS SECTORS AND LEVELS OF GOVERNMENT IS NEEDED**

#### ***Planning needs to overcome sectoral silos***

Housing, transportation, energy, water, agriculture, tourism, economic development—

all of these sectoral issues affect how land is used. Developments in one sector, such as growth in large-scale farming, will affect



another, such as tourism, which may rely on traditional pastoral landscapes. The co-ordination of sectoral issues across a territory is complicated by the fact that sectoral policies, rules and regulations can span local, regional, national and even international scales. Thus, the call for a more integrated approach to spatial planning presents a major co-ordination challenge.

National and regional governments have a critical role to play in this regard by establishing frameworks to support integrated planning across functional territories. They need to create institutions such as the Austrian Conference on Spatial

Planning that can provide effective co-ordination across levels of government and across policy sectors. Better integration and co-ordination of policies is particularly important if a wider range of policy instruments is used to steer land use—as is advocated in this report. Without better co-ordination mechanism, it will not be possible to align an even more diverse set of policies to influence land use effectively.

***The metropolitan dimension in planning should be strengthened***

Land use decisions of one community—rural or urban, large or small—affect its neighbours. From the location of transport infrastructure, to the preservation of natural amenities or the costs of housing—there are a myriad of interactions that connect the functional



territories across which people live, work and travel. Especially in densely populated urban areas, the management of land demands a co-ordinated approach to contentious issues such as regional transportation investments, the location of industrial areas and the amount of housing that is developed. As the purview of spatial planning has expanded, a broader metropolitan scale has been adopted in many countries. It is driven by the need for spatial and land use planning to keep pace with changing functional territorial boundaries. This is particularly important in countries with polycentric urban structures and where the borders of local jurisdictions do not correspond to urban form and the patterns of daily activities of their residents.

Metropolitan planning can be achieved by both formal and informal institutions. The effectiveness of either institutional approach depends to a large extent on the types of issues that a territory faces, the relationships among the actors, the resources at their disposal and, in general, the capacity to implement a common agenda. The policies of upper level governments, regional or national, have a major impact on the adoption of inter-municipal or metropolitan planning frameworks. In countries with consensus-oriented politics and high capacity at the local level, soft co-ordination mechanisms are likely to work well. In other cases, more stringent co-ordination mechanisms at the metropolitan scale may be more effective.

### Better monitoring and evaluation of planning policies is needed

## MONITORING AND EVALUATION OF LAND USE AND LAND USE REGULATIONS SHOULD BE IMPROVED

The monitoring and evaluation of land use and land use regulations should be improved. Too little is known about how land is used and how it is regulated. This concerns in particular land use regulations that are under the control of local governments. At present, the lack of monitoring and evaluation makes it difficult to identify which policies work well at the local level and which do not. Furthermore, the aggregate effects of such land use regulations on regions or even countries are almost impossible to estimate because no systematic information exists about the characteristics of regulations at the local level.

Better monitoring and evaluation is especially important if land use policies focus more strongly on providing incentives and less strongly on setting restrictions. While such a policy shift can improve the effectiveness of land use governance, it also creates greater uncertainty about how land use is affected by policies. Compared to traditional land use planning instruments, incentive-based instruments give individuals greater responsibility, which makes the consequences of policies more difficult to predict. In order to ensure that land use policies achieve their objectives, any shift towards more flexible and incentive-based instruments should be accompanied by better monitoring and evaluation.



### *About the OECD's work on land use governance*

*In order to develop effective policies to improve the governance of land use, the OECD has embarked on a research project involving large-scale data collection along with in-depths case studies. The results of this effort will be presented in a forthcoming thematic publication.*

*The OECD plans to undertake further land use case studies in co-operation with interested national, regional and local governments. For more information contact:*

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