

# THE USE AND VALUE OF URBAN PLANNING

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Why do we need urban planners? It is necessary to ask this question, because there is a general feeling that a lot of master plans have not been implemented, and that as a consequence urban planners might not be that useful.

A number of people therefore wonder if there really is a need for urban planners because, in most cities, planning is done by sectors, (for instance, water, transport, housing, etc) and those sectors are very often managed pretty well. Urban planners are supposed to “plan” across sector, but the practical use of cross-sectoral planning is not self evident. So the first question to answer would be “why do we need urban planners?”

In the second part of the talk we are going to review the performance of planning in different cities, by describing planning success and failures in different parts of the world.

And, finally, deriving from its record of success and failure, we are going to describe an urban planning methodology which, first, will use a cross-sectoral approach; second, will take the impact of market into account; and, third, will increase the chance of success of planning.

So, first, let us address the question of why do we need urban planners?

Many cities are using a sectoral approach to planning. That means that a group of professionals is responsible for housing, another one is responsible for transport, another plan water and sewer and another manage urban land. In general, all of those professionals are pretty competent to manage their own sector. They do what we would call good sectoral management.

Good sectoral management is, of course, indispensable. Specialized professionals know their area very well and usually manage it well, but it is not enough to manage individual sectors. We also need to have a professional who will have a comprehensive look over the way those sectors interact. And this should be the job of urban planners. In this sense, they are rather unique because they are the only ones who can go across sectors and interpret the problem across sectors.

Unfortunately, many urban planners concentrate just on the planning of land use in isolation from the other sectors, and they do not get much involved in infrastructure planning. We have therefore to address this issue of cross-sectoral problems. In particular, let us take a specific example of cross-sectoral problem.

Let us assume that in a city there is a shortage of housing, and therefore there is an overcrowding of some neighborhood, and this overcrowding of the neighborhood creates traffic congestion. This traffic congestion can be addressed in two ways.

The sectoral approach would be to widen the streets. The cross-sectoral approach would be to identify the real problem for traffic congestion, which is in fact due to an overcrowding of a neighborhood, and therefore the solution to a traffic problem might be to build more housing. So you could really address the problem of traffic congestion in two ways; one, cross-sectoral, which deals with housing in order to solve a traffic problem, or one sectoral, which would just widen the street and deal with the street, without addressing the problem of housing. This is only an example, not all traffic problems are due to overcrowding.

Let us look at another example. For instance, let's say we are in a city where there has not been much investment in water supply in suburban areas, and therefore not much new land can be developed in the periphery. The lack of land serviced by the water supply network creates a housing shortage. As a consequence a lot of people are obliged to live in the city center and to pay a very high rent.

There might be several solutions to lower the rent for the majority of households in a city.

One possible solution might be to expand the water supply network in order to develop new land in the suburbs. This will allow developers to build new housing, the increased supply would lower rents for all. We see here an investment in water supply which contributes to solve a housing problem. This is an example of cross-sectoral approach.

Alternatively, we could adopt a sectoral approach which would have the government directly start subsidizing housing or imposing rent control in order to lower rents.

In this case again, the cross-sectoral approach will be more efficient in the long run. The big advantage of urban planning is to avoid narrow sectoral solutions and to allow a cross-sectoral approach.

Another problem of the sectoral approach is a tendency to minimize costs within the sector, without looking at costs and benefits created in other sectors. Very often attempt to minimize costs in one sector creates a lot of problems in other sectors.

Let us imagine a city located along a river. The people who are managing the roads have a tendency to avoid building bridges because bridges are very expensive, and for the same money they can build many more roads. And from the sectoral point of view, this is correct. For a given budget they can build a lot more roads if they build few bridges. As a consequence from a sectoral point of view, it would appear efficient to build roads only in areas where no bridges are needed.

However, from the city point of view, the land which is located across the river has a potentially high value, but this value is close to 0 if there are no bridges to get across the river. If this city has a competent urban planner who understand land markets and is used at looking at cross-sectoral issues, he will very quickly identify the value of the land across the river and find a way to finance the bridges because the cost of the bridges will be very small compared to the value of the land. So this is an example why minimizing costs in one sector can be very costly and why looking across sectors can bring a lot of benefits to the community.

The use of cost-benefit analysis, rather than cost minimizing, is a very important urban planning tool. Sectoral approach tends to minimize costs because within a sector there is a given budget, and therefore the less costs you have within the sector, the more you can do.

But if you look at benefits, and at the same time at costs, then the picture becomes very different. A good urban planner, normally, will try to maximize the difference between costs and benefits but not necessarily to minimize costs. Minimizing costs, while also minimizing benefits, is of no value at all.

Let us take a particular example. How do we measure the benefits of building a school? To measure the benefits generated by a school is very difficult. Of course, a new school would allow a number of students to be educated. We know that this is very valuable for a city to have an educated workforce, but it's very difficult to measure the benefits of education in quantitative terms.

One way to measure the benefits brought by a school to an area it is to look at the change in land rents in an area which had no school and then built one and monitor the change in land rent. Alternatively one can measure the difference in land rent between an area which have a bad school and an area with a good school. One is generally surprised to see that people recognize a difference in services in an area very quickly, and that this difference will be quickly reflected in rents. Rents will go up when you have more services, and the measure of the change would be a way to measure benefits.

Urban planners are uniquely qualified to measure the benefits of social and physical infrastructure. They should be constantly monitoring the evolution of land rents across the city as it is the one of the most useful indicator to calculate costs benefits of proposed investments, and to detect in advance land or housing supply constraints.

But, this is the theory. In practice, most planners never bother to monitor land and housing rents. Planners have a tendency to focus on the design of a land use plan in isolation from other sectors. It's a tendency. They don't always do that, fortunately. That's why we have a few urban planning success stories, .

Planners tend to ignore the reaction of the real estate market to their plans, regulations and infrastructure investments. Planners, without even being aware of it, create shortages or create oversupply, because they are often unaware that their actions have an effect on the market. Very often planners don't quite understand what's happening or are not even aware of a change in land prices or rents. Planners often attribute changes in rents and land prices to other causes like speculation, when, in fact, negative situations are often due to their own planning initiatives.

We have, therefore, to look more carefully at the role of planners and be sure that they play the right role. Before going into the methodology that we could propose to help planners do a better job, let us review very briefly some examples across the world of success and failures in urban planning.

Cities with high incomes do not necessarily perform better in urban planning than cities with lower incomes. They appear to, but that's not the case, and there is a history of planning success and failure practically everywhere in the world. So let us review first very briefly the successes and then the failures.

Western European cities that have been very successful in really two areas:

First, European planners have been very good at protecting historical neighborhoods, while maintaining their economic vitality. In many European cities, the historical areas have been not only respected, but at the same time they have been maintained as the prestigious centers of the cities. In cities as diverse as London, Paris, Berlin, Rome, St. Petersburg, the buildings in the ancient city center have been respected and at the same time have proved to work pretty well as modern office and retail buildings or as apartments. This is rather unique.

Another area where I think that Western Europe has been very successful is in linking urban areas with a very dense network of public transport, in particular, rapid rail. This has allowed those cities to have a much larger integrated labor market and has certainly increased their economic efficiency, while not increasing pollution due to transport. Efficient transit linking relatively dense neighborhoods is part of the urban planning success story of Europe.

American cities have also their success stories, but they are different from European cities. I think that one of the largest successes of American cities has been in maintaining a very competitive housing market and having a land development and construction industry which is extremely responsive to the needs of customers. Developers are able to build very rapidly when demand increases and the industry itself is able to shrink when there is a cycle without creating too much unemployment. That's a big success. As a result, American households can afford larger houses than their European counterparts for an equivalent income.

Another planning success in American cities, and this is not very well known, has been the ability to reduce pollution due to cars by imposing very strict emission standards, which has reduced enormously the amount of emissions per car in the last 10 years. A car built now in the United States pollutes about one-tenth of what it polluted 10 years ago. That is a big success.

Now, let us look at failures because there are also some spectacular failures, too. When I talk about failure, I'm not talking failure in absolute terms, but rather failures compared to what the planners were trying to do. I am not judging policies, which are political and therefore cannot be judged objectively. I define as planning failure an inability to implement a well defined and declared policy, irrespective of the value of this policy itself.

In Western European cities, planners, starting in the '50s, tried to limit the growth of capital cities like London and Paris. They tried to limit it because they thought that large cities would be unmanageable. Planners used a lot of resources trying to limit the growth of large cities, but it never worked. I am not saying that it was a good idea to try to limit the size of capital cities. I am just saying that they were planning to do it, and they didn't succeed. They did not succeed in limiting the size of cities, because in fixing their objective they ignored the demand indicated by markets.

Another European planning failure was planners' attempt to increase the amount of intra-urban trips using public transport, and this didn't work. There are still a lot of people using public transport in Western European cities, but the amount of trips done by car has been increasing every year, and the share of public transit is constantly decreasing. Again, I'm not saying that this is necessarily a bad thing, but it's certainly a planning failure. The objective of the planners was to maintain or increase the amount of trips done by public transport and in all major cities this proportion of trips has decreased and keeps decreasing.

In some American cities, one of the major failures of planning has been the deterioration of the city center. The centers of many American cities have been decaying, and planners for years have been trying to recreate economic vitality in these centers, and they have not always been very successful. In many cases, it has not been successful at all. There are of course a few exceptions, like New York and San Francisco, for instance, where the inner city has maintained a high level of amenities and economic activity.

American planners have always advocated an increase in the proportion of public transport trips. However, despite heavy investment in public transport, and advocacy of transport oriented development (TOD) the amount of trips done by public transport has not increased and has generally decreased in most American cities. The inability to implement the long stated objective of increasing the share of public transport has been one of the most glaring failures of urban planners in the United States.

We can see that the experience of planning around the world has not always been positive. We should be well aware that there are no real fool-proof urban planning models. There are some successes, there are some failures, and we have to learn from both.

The next step is to try to ask, what can be learnt from past planning experience? What should we do to be more efficient in implementing planning objectives? I'm going to try to describe an urban planning method, which could be used, to improve the odds for a successful planning result.

In my opinion, there are really six steps to be followed when working on an urban plan, each of these steps are important.

- Step 1: define priority objectives.
- Step 2: develop a strategy consistent with objectives;
- Step 3: identify and quantify inputs;
- Step 4: identify and quantify outputs;
- Step 5: project and monitor outcome;
- Step 6: project and monitor citywide impacts. .

Let us now use an example in order to understand better what each step consist of..

The first step, defining priority objectives. Let us imagine that the government in a particular city is concerned by the high price of housing which have become unaffordable to a large part of the population. The priority objective would be then to decrease the price of housing. There will be of course other priority objectives, but in this example we will concentrate on this first housing objective.

Second step: developing a strategy. There are many possible strategies to lower housing prices. One possible strategy might be to develop new land. The role of the government will be to develop additional land where new houses will be built by developers, not to build the houses themselves. The government strategy, in this case, would be to develop new land in the suburbs in order to increase the supply of housing and in the long run decrease housing prices for all.

Third step: Identify and quantify inputs. This is rather simple. In this case, it will be just to quantify the cost of developing new land, -- including planning and regulating land use in the new area – how much money the government is going to put up, how much will be borrowed and recovered, how much land is to be acquired or used in order to develop the roads; and finally how many government employees and consultants will have to be used to implement the strategy.

Fourth step: identify and quantify outputs. This task will require calculating the length of road and infrastructure network to be built. Don't forget that building roads and other infrastructure is not the objective. The objective is to have more houses at a lower cost at the end of the planning period.

Fifth step: calculate projected outcome. Project outcome will consist in calculating the area of land which is likely to be developed by developers and how many houses are likely to be built on this newly developed land. This is not a direct output because the output is going to be only the roads and the infrastructure, but it will be important for the planner to know exactly how much area of land is likely to be developed because of the infrastructure network built by the government.

Of course, the outcome will depend on the density, on the land-use regulations which will be used in this area. The outcome will depend on how many dwelling units will be built there, although the dwelling units are not going to be built by the municipal government. But it's very important to identify that as a project outcome. It is very important for planners to differentiate between the outcome (the final result: housing) and the output (the participation of the government in the form of new area plans, new regulations and infrastructure investments).

Sixth step: projecting impact. The planners will have to evaluate what would be the impact of the strategy on housing prices in the city. In this case, to have an impact on price, the number of new houses built each year will have to be large enough to lower housing price in the entire city. In addition during the implementation of the strategy, planners would have to monitor

carefully not only outcome (the number of new houses built) but also impact (housing price change).

Projecting impact is very important. In this example, if the strategy increases the supply of housing by, say, 1 percent, the project might appear very successful in terms of the number of houses built or the quality of houses built, but it will have no likely impact on prices, as the additional number of houses would be insufficient to influence prices. Therefore, the objectives will not be met. This last step, projecting and monitoring impact, is therefore very important.

Most Master Plans are including up to step four, but very few are going through steps five and six, which are really the most important parts of the planning process. Many projects appear successful, but have no impact and therefore, they fail to meet the objectives of the government.

If you look at master plans, and I'm not talking necessarily about China, but around the world, you will find that sometimes the master plan consists of steps one and two--objectives and strategy--and stops there. Sometimes a Master Plan will contain only input and output. That means the plan is limited to a list of projects, for instance, a list of roads which are going to be built and how much they are going to cost. Very few times do planners really calculate the outcome, and even more rarely do they bother to calculate the impact of the proposed strategy. I think that projecting the impact of a strategy is one of the major improvements that should be done if planners want to be more successful and therefore more useful.

Even when planners follow the six steps, there might still be some weaknesses which could appear in the planning process. Very often it is difficult to formulate objectives which are clear enough. Sometimes the strategy proposed is inconsistent with the objectives. Sometimes the strategies are inconsistent with the city's spatial structure itself.

Inconsistency between the various planning steps described above is the major problem in urban planning. For instance, it is very common, to have a complete inconsistency between the objectives and the current or proposed land use regulations. Land use regulations have sometimes been formulated long ago, and there are new objectives, and the land use regulations are really inconsistent with the new objectives. For instance, let's say that there is a strategy that consists in investing in heavy rail transit, an underground metro, for instance, but the current land use regulations are severely limiting densities. There is then an internal inconsistency between the metro, which requires high densities, and the regulations, which are forcing low densities.

Another Master Plans' weakness, that is a little more subtle to identify, appears when a strategy is at odds with customers' demand. For instance, I was talking above about the inability of planners in Western Europe and the United States to increase the percentage of trips by public transport. This planning failure is due to an ignorance of consumer demand for individual houses and private transport which is very strong. Any strategy that ignores this trend in consumer demand is bound to fail. For this reason, it is very important that urban planners monitor and understand markets.

However, the most common reason for planning failure is an inconsistency between projected costs and current resources. Planners often develop master plans, which are very ambitious and costly, and there are just not enough resources to finance it.

Finally, one major failure of urban planning practice is a lack of regular monitoring of what is happening in a city. Sometimes, master plans are done every ten years, and during those ten years, nobody knows exactly what is happening. Municipal financial officers are monitoring costs, certainly. They are probably monitoring output also, but nobody bothers with outcome and impact. I think that this is the major weakness of urban planning as it is currently practiced around the world. Planners, for some reasons, are happy to project the future, but they happily ignore the present.

Let us summarize what we have been discussing here.

First, there is a need for planners to look across sectors. There is an absolute necessity to avoid looking at a land-use issue in isolation.

Second, monitoring the real estate market is very important in order to design a good land use plan because the real estate market will give you an idea of what is the level of demand and whether your plan goes completely against the trend or is in conformity with demand.

Third, it is important for planners to use cost-benefit analysis, to investigate possible negative side effect of regulation and infrastructure investment, and to look for potential inconsistency between objectives and strategies.

Fourth, planners should constantly monitor urban indicators like densities, number and location of building permits, traffic flow, land price and rents.

Finally, fifth, planners should be sure that the 6 steps of planning described above have been followed. Describing objectives and strategies is just not enough to insure successful implementation.

Foreign models are not directly transferable. There are a lot of planning successes around the world, but there are a lot of failures also, and we should learn from the failures may be even more than from the successes. It's easier to learn from the failures than the successes. Using a systematic methodology helps, but it is not enough.

And, finally, we have to be rather modest. Urban planning is not an exact science. We are all still learning in all parts of the world. Nobody possesses a complete methodology which is "fail proof," so we have to learn, we have to face our own failures, acknowledge them and learn from them, and eventually we would be able to demonstrate that urban planning really adds something to a city and makes a city more efficient.