

Production of Lands for Building

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1- INTRODUCTION OF "LANDS FOR BUILDING" SECTOR & ESTIMATION OF THE TOTAL COST

Production of houses, commercial shops and offices is considered an economical and social necessity. This production requires available land served by a road network and other infrastructure utility systems (VRD). This is specifically defined as the process of "production of lands for construction and building". This process covers all works which result in the transformation of the natural and agricultural land that are not suitable for building into areas that are suitable for building.

In most nations of the world, this cadastral /real estate transformation is organized within the following criteria:

- Ensure that the location to be used as a residence or designated for the activities is adequately furnished to meet the requirements of the final users and to limit the risks that could affect or influence the environment.
- Ensure that the costs and profits are equally distributed, where it is supposed that the funding (directly or by settlement) of the investments in the executed infrastructure will be borne by the beneficiaries from the real estate revenues.

The construction of the infrastructure, is considered a prerequisite to the building process.

In Lebanon, the growth rate of the land that undergoes urban extension is 10km² yearly: this increase is specifically made on the agricultural and natural areas which people transform year by year into built lands or paved areas.

In Lebanon, the average cost of the infrastructure needed to produce the plots/ parcels that are suitable for building is estimated at 84 U.S \$/m²¹. This cost represents the works done during a normal parcellation process. No doubt that such cost would increase in the event that the land are scattered.

Assuming that all new urban extensions taking place yearly in Lebanon are to be pre-equipped with the infrastructure (VRD), then the total cost of such furnishing would amount to 600 million U.S.\$ yearly².

This highlights and indicates the importance of the sums invested or to be invested in this sector.

¹ A detailed drawing for land reform CDR in collaboration with DGU 2004. 84\$/m² was taken based on data collected from several countries

² Mathematical formula 84 \$/m² of infrastructure for building against the following elements:
 Urbanisation= 10 million m² of lands/year, parcellation concerns= 7.5 millionm²/year COS average= 1
 Construction= 7.5 million m²/year infrastructure = 80 \$/m², the total infrastructure = 7.5 million * 80 \$/m²
 = 600 million \$

The fact that the infrastructure (VRD) in Lebanon is not totally completed prior to the building process has no effect financially speaking, since the construction of the infrastructure would take place sooner or later. Also the substantial capitals invested by the Government and the Municipalities in order to "compensate for the delays" in connection with the infrastructure, are also entered within the budget of "production of lands for building".

2- INSTITUTIONAL & TECHNICAL APPROACH

2-1 RESPONSIBILITIES OF THE GOVERNMENT IN THE PRODUCTION OF LANDS FOR BUILDINGS

As the production of lands for building purposes is one of the major conditions for satisfying the social and economical needs, in conditions of acceptable security conditions, it could then be placed in the framework of public welfare, it is obvious, therefore, that the Government would play a certain role in the organization of this process (broadly speaking: the Government and Municipalities)

The responsibility of the Government covers the following obligations:

- The Government would ensure that the quantity of land for building supplied in the local market is sufficient and adequate to satisfy the demand: In Lebanon the demand on such land is estimated at 4 million m² yearly in addition to 2 to 3 million m² of lands designated for public areas and utilities which accompany the urban development (within the subdivisions and Municipalities).
- The Government would ensure that facilitating the urban extension in one area would not impose risks on the public health and safety of the people in the coming years (a matter that is usually raised in the building regulations and some of the urban planning regulations) or cause any harm to the resources (natural and cultural).
- The Government would ensure that the quality of the executed infrastructure would guarantee an acceptable level of service in relation to the local transport, water and electricity services, telephone system, wastewater disposal and solid wastes collection.
- Finally the Government shall ensure that the costs and profits are equally distributed. The funding of the infrastructure executed by the Government or by themselves would be borne by those who benefit from the real estate revenues.

2-2 INSTITUTIONAL MODALITIES (CURRENT) USED FOR THE PRODUCTION OF PARCELS FOR BUILDING

Within the frame of assuming its responsibilities in the production of parcels for construction and building the Government would follow the following modalities:

The quantitative supply of land:

In Lebanon the Government seeks the assistance of three tools :

- Administrative permits for the private parcellation processes (the predominant modality).
- Construction of roads which lead to the transformation of lands that are not suitable for building to lands suitable for construction (or good for parcellation), this change would be almost automatic since the current legislation makes all lands within the Lebanese territories as lands suitable for building/construction as soon as the road reaches these lands.
- The execution of grouping and parcellation operations of land and the construction of more or less advanced infrastructure (as in Tripoli): the method of such interference is rare in Lebanon.
- Establishment of Real Estate companies similar to those established for Beirut Commercial Central District.
- Create public establishments the work of which will concentrate on the real estate development for one area such as ELLYSAR.
- Execute marine fill operation per special contracts between the Government and the private sector similar to what has taken place in North Metn Coast.
- These tools remain inadequate since the Government is neither carrying out adequate measures nor controlling and supervising the private sector.

Obsevation of Public Safety measures and limiting the degradation of Resources:

In this scope the Government utilizes the following methods:

- Organization of nation wide regulations (building and urban planning regulations and environmental laws). It is the most used tool in general. The laws in their comprehensivity donot state any geographic differntiation.
- Often the local urban planning drawings ,if they exist, note strict building regulations in critical sensitive areas in which construction constitutes a risk. Such tool is considered of limited impact since the plans cover only 10% to 20% of the Lebanese territories, most of them do not deal with the risk subject.
- The private conditions imposed on the parcellation operations if natural risks exist: Such private conditions are seldom used.

To Ensure an Acceptable Level of Services:

Until now, the Lebanese Government does not set a real link between the transformation of agricultural or natural land into land suitable for building, and the provision of an acceptable level of services to the future occupants.

This situation is serious. There is a deficiency in the infrastructure made available in the parcellation even after the elapse of many years of the permit issue (say 10 years). Complete towns have been developed without having appropriate infrastructure (refer to the southern extension of Greater Beirut).

Ensure the equitable distribution of costs and fees

We cannot say that the Government is actually concerned with the principle of just distribution of costs: this view is dealt with in detail in the economical approach mentioned hereinafter.

The situation could be briefed as follows: the land owner gains the whole real estate revenue resulting from the change / transformation of the status of a specific parcel (say from land not suitable for building into land suitable for building) , having only paid a very limited and minimal portion (minor in general) of the infrastructure costs. The Government, in its turn, undertakes the construction of the major part of the infrastructure works accompanying the parcellation process under the title of "compensation for the delay in the preparation" of the quarters or the villages from the taxpayers' money. Accordingly, the redistribution process from the taxpayer to the beneficiary of the real estate revenue is estimated at millions of dollars yearly.

2-3 THE INSTITUTIONAL DEFICIENCIES AND THE WAY TO ADDRESS THEM

We conclude from the abovementioned that special efforts should be made in the following subjects:

- Improve the legislative and organizational framework concerning the land prepared for building. The French legislation for urban planning for example, allows for extension zones and states which cannot be built as long as they are not provided with the required infrastructure.
- Speed up and expedite the establishment of local Urban Planning Plans and schemes.
- Government participation noticeably in the process of grouping and parcellation of lands at a large scale (around the large communities specifically).
- Protection against risks and damages in connection with the method of dealing with the parcellation operation permit requests.
- Control the accounts of the public expenditures relevant to the preparation of lands.

2-4 TECHNICAL DEFICIENCIES AND THE WAY TO ADDRESS THEM

At the mere technical aspect, the infrastructure issue, as applied in Lebanon, raises the following problems:

- Only the road is considered as the prime factor for changing the land system (from lands not suitable for building into lands suitable for construction and building) , this results in spreading of buildings without ensuring the proper infrastructure.
- Main roads located between the cities and even highways, are considered as constituent factors for the construction of adjacent lands, whereas the main purpose is to provide transport services within specific safety and pre-established speed conditions.
- The majority of parcellation initiators only provide infrastructure for the roads, while the Government is late in handling the process of completing the infrastructure.
- The permits relevant to the parcellation and building of isolated lands do not pay due attention to the issues of safety, security, health and damages to the resources.
- The scattering of urban extension increases the cost of infrastructure works or at least renders it difficult to construction.

Improvement of the technical options would involve the rectification of these existing deficiencies and would satisfy the objectives and responsibility of the Government.

As we have already seen in the institutional issue, special efforts should be made to strengthen the technical alternatives through the following:

- Improvement of the legislation in order to avoid production of land for building in dangerous locations or in sites and location which include basic resources.
- Improve the legislation process in order to avoid scattering of urban planning (strengthen consolidation).
- Oblige real estate companies (private or public) to construct infrastructure of a higher standard.
- Distinct separation between the main road network (especially the highways and public roads) and the production of lands for building , through the proper legislation and the police.
- Greater involvement of the Government in the process of preceding any urban planning activity with the construction of good standard infrastructure.

3- ECONOMICAL APPROACH

3-1 ACCOUNTS OF PRODUCTION LANDS SUITABLE FOR BUILDING

The process of transformation of the agricultural lands into lands suitable for building would appreciate the value of the real estate.

This increase is considered vital and essential since it could increase the value of the original agricultural land ten times.

The following example illustrates the above statement:

Let's take the situation where the urbanism regulations are strict. The selling price of the agricultural land would be U.S.\$5, in the same sector, the land for building purpose (where the investment factor is 1) is sold for 150 U.S.\$/m². If we consider that the cost of transformation of the agricultural land into suitable for building land is 80 U.S.\$/m² then the net revenue that will be gained by the owner will be $150 - 80 = 70$ U.S.\$/m².

In Lebanon, the net revenue records remarkable increase since the owner of the land does not actually spend 80 U.S.\$/m², but rather 20 U.S.\$/m² (including the free expropriation of 25% of his agricultural land for the road). This would lead to the conclusion that the owner would collect a net revenue equivalent to $150 - 20 = 130$ U.S.\$/m² that is 25 times the price and value of his land.

The role of the Government consists in the follow-up of transformation of the agricultural land into lands suitable for building and construction, and bearing actually the greatest part of expenditures on the infrastructure, spontaneously or later on based on the principle of "improving and upgrading the standards" of the urban extensions that are not served adequately. In the event that the original land owner has only spent 20 U.S.\$/m² on the infrastructure, then the balance would be settled by the Government which will pay 60 U.S.\$/m². Consequently the land owner would never pay this difference but will be borne by the Government.

Finally, there is a factor that needs to be considered which is the ultimate user; this user would pay the whole revenue cashed by the original owner. This final user is obliged in many events, to fund a group of alternative works for the infrastructure at his own expense as these would not have been completed properly.

3-2 ECONOMICAL EFFECTS

As mentioned earlier , the Government does not recover the investment value. The expenditures of the Government on the infrastructure should, in principle, be secured from a self funding fund, however in reality this is done without any financial revenue. Accordingly, the taxpayer should ensure annual funding for this sector, that is a cost which could exceed 600 million U.S.\$ as mentioned earlier.

Should the taxpayer fail to provide the whole sum, then the final user of the site would provide such dues through alternative inevitable investments such as (drilling artesian wells, providing generator sets for electricity) which will merely be temporary solutions.

The owners of the land will be the greatest beneficiaries from the modification of the land use classification of their lands: they receive an additional real estate revenue, which enables them to remain winners even if they had to settle the total cost of expenditures spent by the government on the infrastructure, which they actually do not.

The money spent on infrastructure is therefore transformed into direct revenues in the local study offices (Urban Planning and Engineering), and in local establishments for public works and infrastructures, local brokers transformed (merchants), transporters, local also in the sale of imported materials and tools which are locally when needed (pipes, cables and wires, fuel).. When property is transferred, then part of these expenditures would return to the old owners from whom the property was transferred.

With respect to the urban extension resulting from such scenario, it is worth to mention several negative impacts in Lebanon in this regards namely: deterioration of the water resources due to dificiency in the supply and drainage networks, deterioration of the the natural and cultural locations as a result of the lack of enforcement legislations to a great extent , and the large scale deteioration of public safety conditions and traffic conditions and deterioration of public health.

3-3 CORRECTIVE MEASURES NEEDED AT THE SECTOR ACCOUNTS LEVEL

It is inevitable therefore that the accounts of production of lands for building be organized especially in connection with the following:

- Charging the complete cost of infrastructure to the land owners.
- Use the public funds as a circular capital strengthened by the added value on the real estates and not the taxpayers.
- Limit the negative externatities through applying a more accurate urban planning.
- Limit the negative externalities through the upgrade the technical level of the infrastructure utilities.

4- SPATIAL AND SOCIAL APPROCH

4-1 SPATIAL APPROACH

The process of transformation of new natural and agricultural areas into built areas concerns all the lebanese territories and constitutes yearly a cumulative area amounting to 10 km² or 1000 hectares.

The physical master plan for the Lebanese territory gives details about the distribution of these areas:

- 18 % for the central urban area.
- 5 % for the Tripoli agglomeration
- 14 % for the other six large agglomerations in Lebanon
- 63% for other locations in Lebanon (small towns and villages).

This distribution is not the same if one deals in terms of population which is a better indicator of the distribution of the necessary land areas:

- 28 % for the central urban area.
- 20 % for the Tripoli agglomeration
- 26 % for the other six larger agglomeration in Lebanon
- 26 % for other locations in lebanon (small towns and villages).

These components show clearly:

- The majority of the financing of the infrastructure should be made in the suburbs of the greater communities in the country taking into consideration that these polarize and attract the major part of the demographic/population and economical growth.
- The need for concurrent efforts to maintain the natural and cultural resources through practicing urban planning in the areas that are outside the greater communities (taking into consideration the concerned areas).

4.2 SOCIAL APPROACH

It is noticed that the real estate revenue in areas of higher value, namely in the larger communities, are much higher than those in the countryside/ Rif areas which suffer of economical weakness. This difference raise the issue of equilibrium of the distribution of commissioning costs nationwide through the funding of the infrastructure works.

Currently, the taxpayer funds the greater part of land preparation works. This equation is considered unfair since it increases the fortune of the land owners especially in high

value lands price goes higher at the account of the tax payer which is in Lebanon the consumer and the employee.

This matter could be minimized through imposing a tax on the real estate revenues (through a fixed or rising percentage) and to designate this money for the construction of good standard infrastructure in all the Lebanese territories.

This pattern of work would fit more and in a better way the principle of the balanced regional development, ensuring at the same time the safeguard of rights and interests of the tax payer unconcerned with the issue of production of lands for building.

Consequently, technical approaches and methodologies should be sought that would limit the designation of the financial resources coming from taxes, on the preparation of lands to make them suitable for construction and building . In France for example, the Municipalities deducts a local infrastructure tax for preparation of the land when they issue a building permit.

5- CONCLUSION INCLUDING A FUTURE VISION FOR 10 – 15 YEARS

Lebanon can reform its system for the production of lands suitable for building within 10 -15 years

The reform process required would concentrate on the following:

- The need of more clear regulations with respect to "lands prepared for building", that would exclude the lands inadequately equipped, at least in the areas beyond the limits of the existing towns and villages.
- Additional devices for the management of the Urban Planning in order to speed up the process of preparation of urban planning plans and schemes.
- More involvement of the Government in the urban development and parcellation process especially at the perimeters of large cities.
- Tax reforms which charge the costs of the infrastructure works completely on the account of the beneficiary party of the real estate.