CHAPTER FIVE

LAND REQUIREMENT

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5.1 INTRODUCTION

In the last Chapter, we presented a scenario of the population in each place to year 2020. This chapter will calculate the amount of land (in hectares) which will be needed to accommodate those people.

We note that some of this demand can be met by *infilling and densification* of certain urban areas which already exist. The *entire* demand need not be met on "new" land. Some of these areas already have infrastructure and roads. These will need repairing in most cases, but an "infilling" approach is more economic than the development of entirely new sites.

Other existing areas may be derelict or abandoned. In the case of industrial areas, there may also be seriously toxic land pollution. Such areas should not be permanently abandoned, but brought back into a developed state as part of a "derelict land reclamation programme". This is discussed in Chapter 9 on the Environment.

5.2 DENSITY ASSUMPTION

5.2.1 Plot Size, Floor Area Ratio and Plot Occupancy

We have postulated a demand for land based on a notional average plot of 180m2. This might accommodate a house footprint of 7m width x 8m depth, yielding floorspace of 112m2 at two storeys or 168m2 at 3 storeys. Setbacks would be 5m front, 5m rear, 1.5m sides, leading to a plot of 10m x 18m. We suppose that the average occupancy over the plan period to 2025 is one household per floor, amounting to two or three households (averaging 2.5 households) per 180m plot, or 1 household per 72m of plot area.

The "Floor Area Ratio" (or FAR) is the floor area divided by the plot area. This will be 0.6 at two storeys and 0.9 at 3 storeys. However, the local access road in front of each such building is assumed to have a Right of Way of 5m. For a street with houses on both sides, the RoW area is 2.5m x 10m or 25m2 per plot. We assume that with lateral local roads this grows to 30m2 per plot. The net land per plot (including local access roads,) is thus 210m2, or 85m2 per household.

5.2.2 Net Density and Gross Density

Of course, the development of an average neighbourhood will also require land for important roads, business premises and social infrastructure, (such as parks and schools.) As an average, we assume that a typical square kilometre will be made up as follows: see Table 5.1 below.

Within this square kilometer, is a housing district of 65ha, (or 650.000m2). Here we would find 3,095 standard plots or 7,738 households, a gross density of 77 dwellings per hectare. We regard this as an average 'rule of thumb', and do not imply that every plot should be the same size.

Housing and local access:	65ha
Major roads (15% of housing)	9ha
Social infrastructure and retail: (20% of housing)	13ha
Neighbourhood subtotal:	87ha
Business all types: (15% of neighbourhood)	13ha
Total:	**100 ha**

Table 5.1 Typical Land Budget

5.2.3 What is a Rational Density?

The average density target of 77 dwellings per hectare may seem to be too high. It is certainly much higher than that typically achieved in Albania in the last fifteen years. The explanation for the currently low densities is that (a) proper layouts are rarely prepared so that use of land is very wasteful; and (b) an economically rational price is rarely paid (due to the lack of an organized market,) so that people can take more land than they could otherwise afford.

The aim of this plan is to provide infrastructure for all plots. The cost per household will be higher if the density is lower, and a high average cost will not be affordable (and therefore will not be provided.) we have indicated the highest density achievable by two or three storey buildings in a 'villa' form. In Chapter 6, we analyse the cost of local infrastructure provision (covering roads, sewers, water, power and lighting) at this density. We argue that people can afford this, and the reason for the average density target is to allow infrastructure to be provided. But the target will not

arise by accident. It will need proper layout to be prepared *and implemented*.

5.3 LAND REQUIREMENTS

In Chapter 4, we estimated the population growth and proposed its location. In Table 5.2, we restate this and convert it to land needs on the basis of the density assumptions given in Section 5.2 above.

However, we must here refer back to Section 5.1, and point out that some of this supply should be met by the reclamation of derelict land and by the infilling of small vacant plots to be found within built-up areas. If we suppose a careful programme of this type, then we estimate five percent of needs could be met in this way. Approximately 400 ha of 'new land' may thus be needed, which is four square kilometres over 15 years, rising annually to almost 0.3 sq. km.

Location	Population Growth to 2020	Land Needs (Ha)
Shkoder Corridor	34,664	72.2
Shkoder City	33,647	70.1
Bushat	18,250	38.0
Velipoje	19,440	40.5
Vau Dejes	4,835	10.1
Shengjin	18,561	38.7
Lezhe City	60,460	125.7
Villages	15,172	31.6
TOTAL LAND REQUIRED:		**426.9 ha**

Table 5.2 Land Requirements

5.4 LAND MANAGEMENT AND DELIVERY

5.4.1 The Land Problem

The achievement of planned communities (as proposed above) will not happen by accident. How is urban growth achieved at the moment? The normal process is for families to 'seize' land and build their own house with no layout plan, no roads or infrastructure and no legal entitlement or planning permit.

Nobody works out a plan, with a road system, plot boundaries, or infrastructure networks, and the space for roads and infrastructure is not provided, (nor indeed are they constructed.) The 'urban formation' occurs in an essentially accidental manner. Following this system, it will be impossible to achieve the densities proposed above. Indeed, the expected gross density without planning may be around a quarter of that mentioned above, (perhaps requiring four times more space, with no increase in environmental quality, as one can regrettably see in Kamza.) The disadvantage is that no mains sewers and water are provided and the pollution consequences of that are serious.

5.4.2 A Five-Step Process

The question is how to organize the community planning process in practical reality. Of course, this is a far bigger question than one regional plan can or should tackle. However, in the consultants' opinion, the process should have five steps.

- ***Step 1: Define 'Organised Development Zones'***. There should be boundaries given precisely on plan. Restrain development on land outside these areas, and demolish such buildings.
- ***Step 2***: ***Prepare Layouts for these Zones.*** The layouts should define land for roads, infrastructure and non-housing uses (such as schools, parks and businesses.) Prepare (on one side of paper) the rules to regulate what can be done on a plot. Give permission automatically to certified owners, but confiscate buildings not in conformity.
- ***Step 3: Constitute a unified Consortium of Land-Owners in each Development Zone and appoint a Committee of Three Trustees. Dispose of Plots.*** The owners would have a 'share' of the asset in proportion to the area of their land (as a proportion of the total zonal area.) The Trustees (not owners) would commission the layout and dispose of the plots for payment. They would disburse the income to the owners, and issue property certificates to new owners.
- ***Step 4: Design and build roads and local infrastructure by competitive contract.*** The trustees would employ engineers and construction contractors to create roads and infrastructure following the layout design (mentioned in Step 2.)
- ***Step 5: Devise and Follow a Financial Plan.*** The trustees would create a 'business plan' which would relate the income from disposal to the cost of construction (Step 4).

5.5 CONCLUSION

Further comments will be made in Chapter 6, but there is one particularly fundamental observation to be made now. The consultants believe that this method is a technically feasible and affordable approach, and they will demonstrate that. But they do wonder if the broad mass of the population would believe that the envisaged 'trustees' operating the proposed process could, in fact, conduct the matter with objectivity and transparency. Would the people be so disbelieving that this (or any other) process of urban growth management would be impossible to carry out?

If this were the case, then no plan could be carried out (and should not even be prepared.) but this disturbing consideration lies quite beyond the scope of our present work.