The Master Plan of Ballshi, 2004

Giovanni Sergi[1], Fatlinda Struga[2]

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1. Historical and geographical context

Travelling southwards by car or coach along a narrow and winding road connecting Fieri to the Greek border, before getting to Tepeleni, we arrive in Ballshi, capital of the Malacastra[3] district. The people resident in the municipal area of Ballshi in 2007 were 11.000 (Fig.1,2).

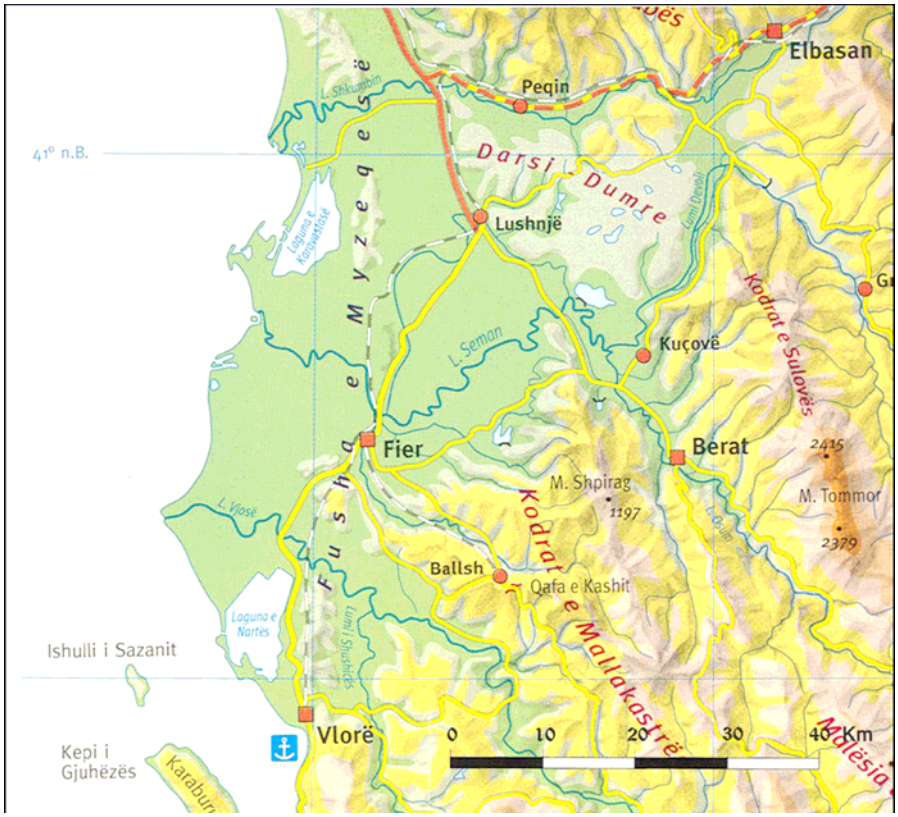

Figure 1. *Corography of Southern Albania, original map at 1:750.000 scale. In the middle, the city of Fieri with 63,000 inhabitants in 2007, South-East of Ballshi. On the coast, the port of Valona and the Saseno island*

[1] Aggregated Professor and university researcher in the field of Urban Planning, Department of Design, Urban Planning and History, Università Politecnica delle Marche-Ancona.

[2] Architect and Urban Planner, ISPU - Istitute for Urban Studies and Planning - Ministry for Territorial Management and Tourism, Tirana.

[3] Albanian is an Indo-European language that derives from an Illyrian background and a mix of Latin, Greek, Turkish and Slavic elements, and more recently also from Italian and French words. It was handed down orally from generation to generation and coded in 1972 in Tirana. As concerns toponimy, besides Albanian terms, we can find Greek or Slavic terms. In the article we have used Italian terms when possible. The following toponyms are both in Italian and in Albanian (in italics):
(Berat – B*erat;* Durazzo – *Durrës;* Fieri – *Fier;* Malacastra - *Mallakastër;* Musachia - *Myzeqesë;* Osumi - *Osum;* Saranda - *Sarandë;* Saseno - *Sazanit;* Scutari - *Shkodër;* Selenizza – *Selenicë;* Tepeleni - *Tepelenë;* Tirana - *Tiranë;* Valona - *Vlorë;* Voiussa - *Vjosë)*

Malacastra is an area in the South of Albania characterised by hills and low mountains, comprised between the Musachia valley and the rivers Osumi and Voiussa. It is an area of transition between the flat territories on the coast and the mountains of Central Albania. The name Malacastra derives from the military campaign of Julius Caesar vs Pompeius in 48 b.C. It is supposed that military camps for winter settled in this area: the bad season and paucity of supplies were remembered by Caesar's troops with the name of Malacastra.
In ancient times this area was quite important, as shown by three archaeological sites dating back to the Greek -Roman age. Apollonia is located on the coast near Fieri, at the edge of a small chain of hills in Peshtani, the ruins of Byllis on hill in front of river Voiussa, and those of Amantia at the feet of Griba mountains, South of Ballshi.
In the Middle Ages Ballshi was an episcopal town. At the end of the 15th century, it was destroyed by the Turks and the bishop's residence was transferred to Berat. Today only few parts of the cathedral are still visible. At the end of the 30', it was village with about 450 inhabitants with a market for agricultural products.

Figure 2. *The state road connecting Ballshi to Fieri and Durazzo along the border of the Malacastra district*

The district (*rreth*) of Malacastra in 2004 had an estimated population of 40.000 inhabitants and a surface of 325 square kilometres. This area has strong relations with Berat, Fieri and Valona as concerns exchanges. Ballshi, is located on the side of a hill near the river Gjanica, in area which was already known in the Greek and Roman ages thanks to the asphalt cement that was extracted near Valona, about 30 kilometres far away from Ballshi. It is confirmed that the Romans exploited bitumen mines in Selenizza, about 12 kilometres North-East of Valona and 20 kilometres South-West of Ballshi.

The first modern research on hydrocarbons was carried out in Albania in 1868 by the French geologist Henri Coqland who studied bitumen mines in Selenizza. This area was the first and the only one to be exploited at the end of the 19th century thanks to the foundation of a company with shares owned by the Ottoman Bank in 1875. However, this company had its Headquarters in Paris and French personnel. It started extraction activities at the beginning of the First World War in an area of 650 hectares.The yearly volume of asphalt and bitumen was 6,000 tons. In 1918 these mines were granted to the Italian Mines Society (Società Italiana Miniere) in Selenizza. During the First World War, the Austrian discovered oil sands near the small village of Pathos, 15 kilometres West of Ballshi.

During the 20s, the Englishmen with their company Anglo Persian Oil, the Americans with the Standard Oil Co. and the Italians with the Azienda Italian Petroli (Oil Corp.) then called ANIC, were committed to search for oil, in the quite big area comprising the basin of liquid and solid hydrocarbons between Valona and Kuçova.

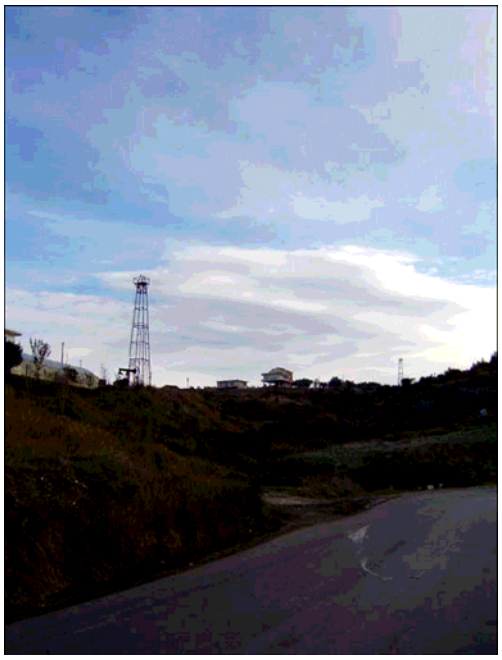

Figure 3. *(above) Plants for the extraction of hydrocarbons near Ballshi*
Figure 4. *(under) The railway that crosses hydrocarbon mines in the district of Malacastra connecting Ballshi with Fieri and Durazzo*

Italy was given a grant by the Albanian Government to carry out activities in the Vojussa valley around the bitumen mines of Selenizza. After 1939, ANIC (Nugoli L.,1940), replaced the English Corp. Anglo

Persian Oil Co. starting to search for hydrocarbons in the Northern side of the Malacastra mountains that slope down toward the river Gjanica in the nearby of Ballshi.
A hydrocarbons refinery, ARMO SH A is located in the area of Ballshi. Here work 1,300 people and the refinery produces about 300,000 tons of hydrocarbons every year: gas oil, benzene, coke, bitumen and other products[4]. In terms of pollution, the consequences of this activity are very considerable. Big quantities of polluted water reach the river Gjanica without being treated and emissions of H2S, SO2 and other hazardous gases pollute the atmosphere (National Environmental Agency,1999).

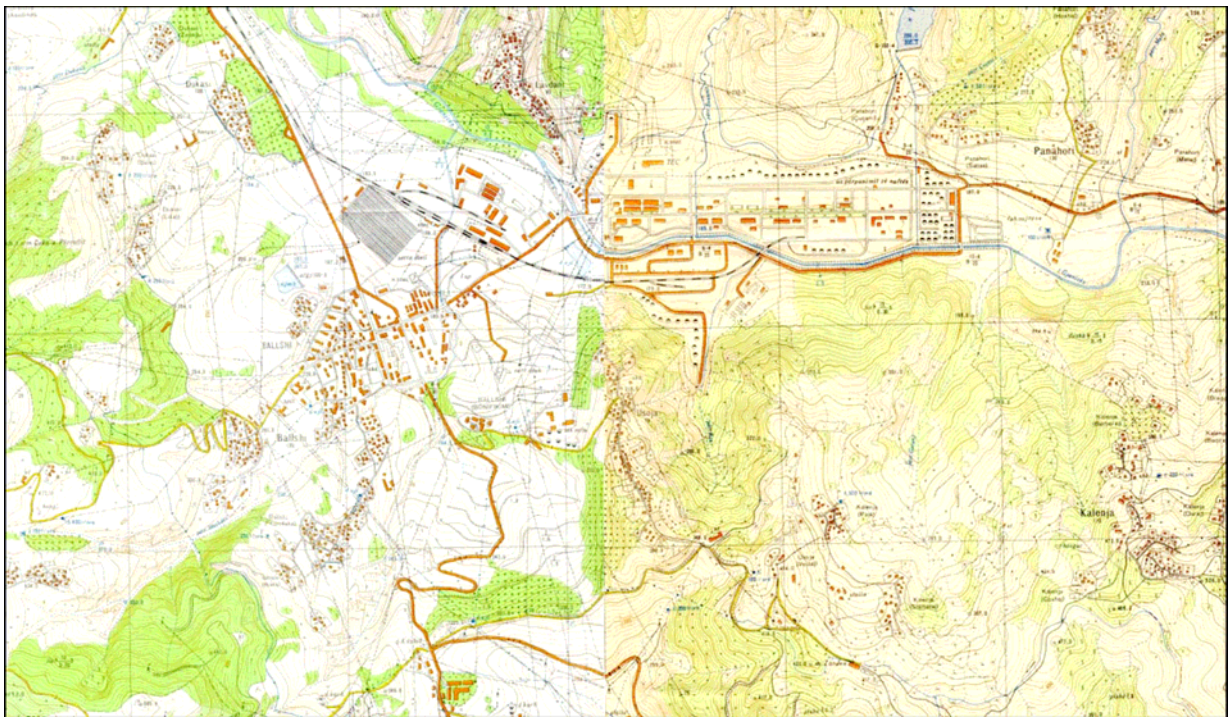

Figure 5. *Map of Ballshi,1983. It is possible to see the urban centre on the left and the state road that crosses it on top on the left. On top is the railway and in the middle the ARMO hydrocarbons refinery on the bank of river Gjanica*

2. The new Master Plan for the Municipality of Ballshi in 2004

The already existing Master Plan for Ballshi drafted in 1970 was no longer suitable to promote town development. Economic and social changes that took place in the first decade had made it necessary to adapt the Plan to the new context.
The number of residents tends to increase and for this reason it has been necessary to find solutions that can meet the new needs by outlining a new Master Plan.
The town and its territory needed updated and relevant urban planning solutions in order to implement the model of sustainable development (UNDP Albania & Co-PLAN, 2003). The new Plan was drafted by the ISPU in Tirana in 2003 and approved by the municipality of Ballshi in 2004. The people in charge of drafting the Plan found it useful to divide the problems of the municipal area into those related to the existing urban system and those caused by its growth.

[4] The refinery located in Ballshi is one of the two plants in Albania. Its activity is structured in three sectors: extraction, support services for refining, plant for the refining cycle of hydrocarbons and a thermoelectrical plant. The value produced in 2003 amounted to 3,1 million US dollars. Production in the refinery was one third of the whole plants capacity. The people employed in the company were 1,863 in 2003 in the whole region, 1,300 in Ballshi.

The surface of the existing town in 2003 was 67 hectares and the built area had a density of 107,26 inhabitants per hectare. The majority of buildings that have been built over the past few years lack administrative authorisation by the Municipality.

Some of the greatest problems are:

- The pollution of the atmosphere, water and soil
- The paucity of infrastructures for the town
- The paucity of social services
- The lack of an area for free time and entertainment
- The low density in residential areas
- The lack of facilities for cultural, artistic and tourism related activities
- The lack of urbanised areas to meet the demand for new houses

Some of the problems to solve in order to facilitate a potential growth are:

- The choice of suitable areas for town development
- Assign specific functions to different areas, potentially involved in development

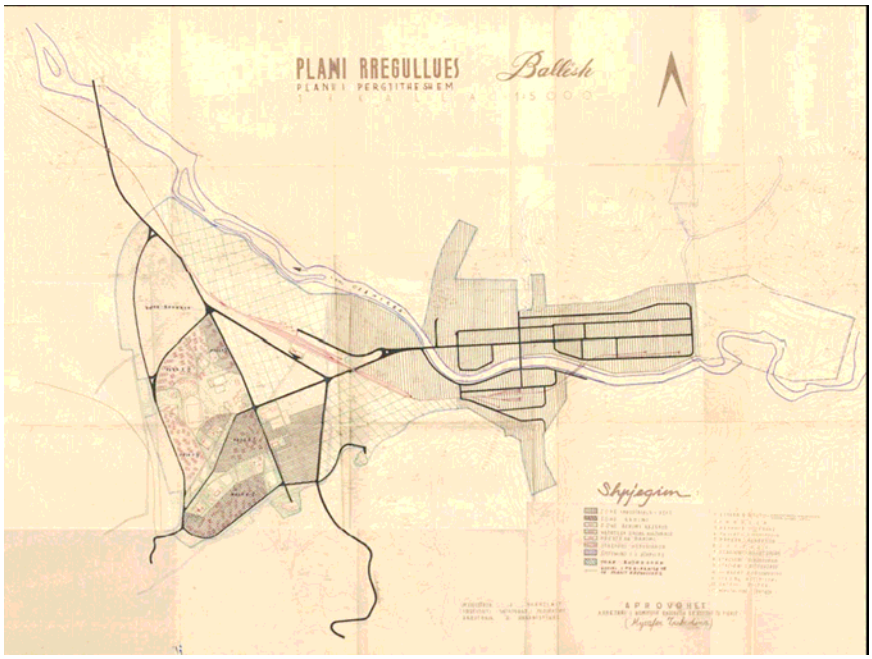

Figure 6. *The Master Plan for Ballshi dated 1970. The original map is at 1:5000 scale*

2.1 Demographic dynamics until 2003

Over the past few year, in the town of Ballshi, demographic development has been quite considerable. In 1989 here lived 9,100 inhabitants, while in 2007 the resident people were 11,026. The table below (Tab.2.1) highlights the trends of the resident population in the Municipality of Ballshi.

Anno	Popolazione
1989	9.100
1992	9.940
1993	10.698
1994	11.348
1995	11.939
1996	12.126

1997	12.478
1998	12.685
1999	12.978
2000	-----
2001	9.467
2002	-----
2003	9.100
2007	11.026

Tab. 2.1 *- Resident population in the Municipality of Ballshi between 1989-2007 Year Population*
Sources: ISPU,Albanian Vital Statistics Office, UNDP)

Houses and buildings built until 1970 have maximum three floors and are located on the side of the hills. Houses and buildings built from 1970 until 2001 have a number of floors from two to five and are located in the town centre. The new building partly comply with the regulations foreseen by the Plan, while others are unauthorised.

The buildings complying with the regulations are those within the designated construction area according to the old Plan drafted in 1970, while the unauthorised ones are those built outside the designated construction area.

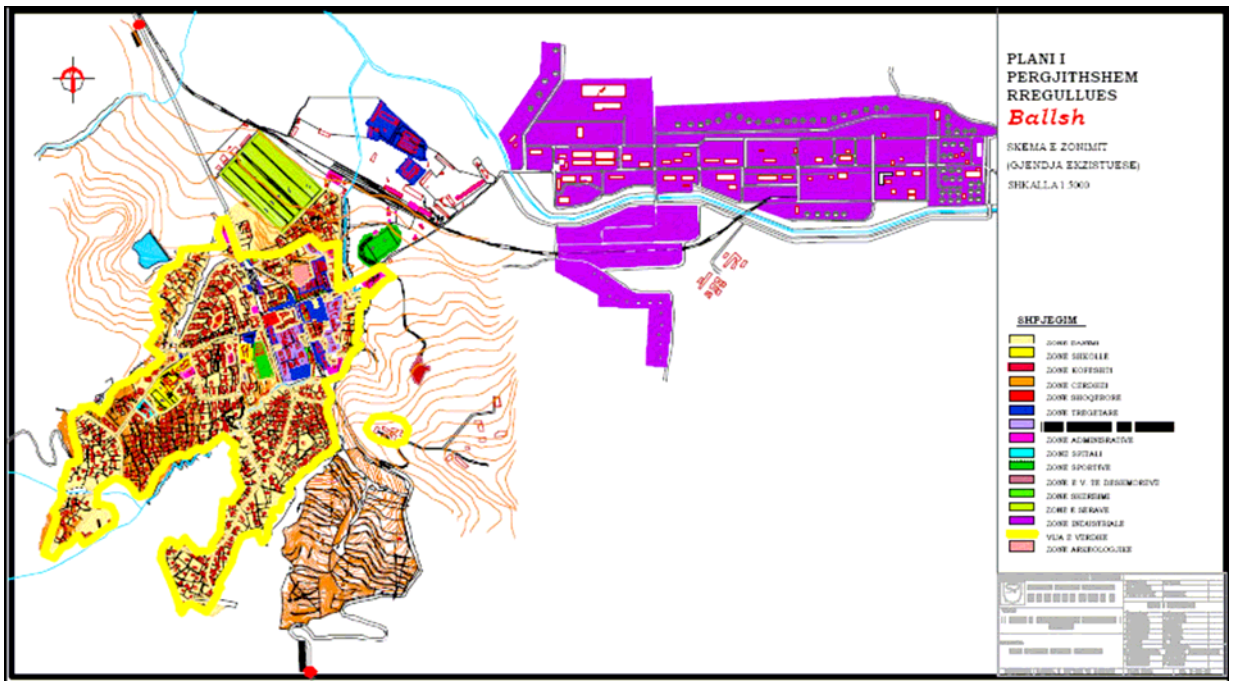

Figure 7. *Master Plan of Ballshi dated 2004. Layout of the town zoning. Situation in 2003. The yellow line highlights the borders of expansion of the urban area. 1:5000 scale*

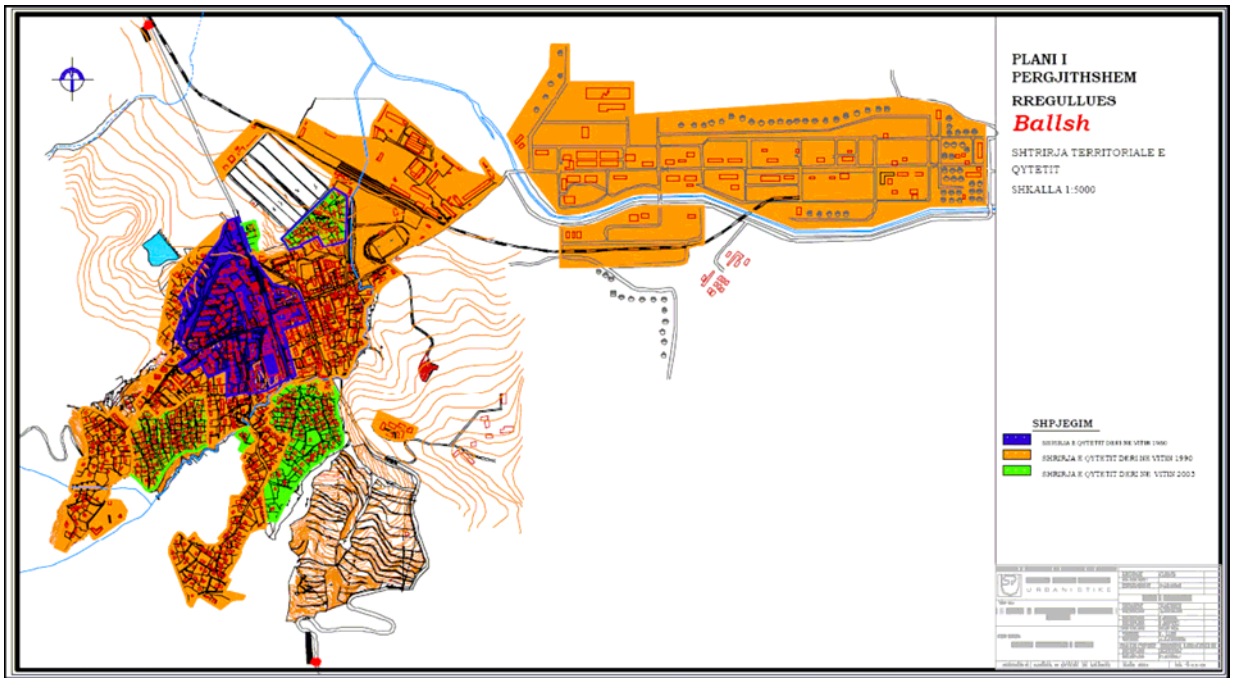

Figure 8. *Master Plan of Ballshi dated 2004. Phases of the town development. 1:5000 scale Legend. Blue: urbanisation of the town until 1980, Orange: urbanisation of the town until 1990, Green: urbanisation of the town until 2003*

2.2 Current situation related to the residential area and social service

The residential area has developed on both sides of the state road. The 25% of this area is located in the north-east side of the road, while 75% is located south-west. In the first part we can find buildings with housing, administrative, productive and commercial functions. The second portion is made up of hospitals and smaller areas with commercial, administrative and educational facilities along the main roads.
The houses built in this area are mainly single houses with one floor, while only few of them have two floors. These houses have been built on lots with a surface comprised from 300 and 2.000 square meters. These lots usually have a smaller surface in the town centre, while in the periphery the surface increases. The shape of lots is often not homogeneous, like the construction plan of buildings. The areas where the houses have been built are generally not completely flat.
If we compare the limitations set by Master Plan in 1970 with the current situation (Tab 2.2), it is possible to see that the surface designed for the residential area is bigger than foreseen by the Plan. The slopy and sometimes rugged ground has facilitated an extensive exploitation of this areas for residential settlements (Fig. 10, 11).

Functional partition of the residential area	***Surface in hectares actually used until 2003***	***Surface in hectares foreseen by the Master Plan in 1970***
Areas for residential settlement	64,7	43,0
Areas for social services	12,1	5.6
Green areas	----	4.7
Areas for sport activities	1,5	3.7
Road and squares	4,2	7.5
Totale	82,5	64,5

Tab. 2.2. *The inhabited area structured according to different functions*

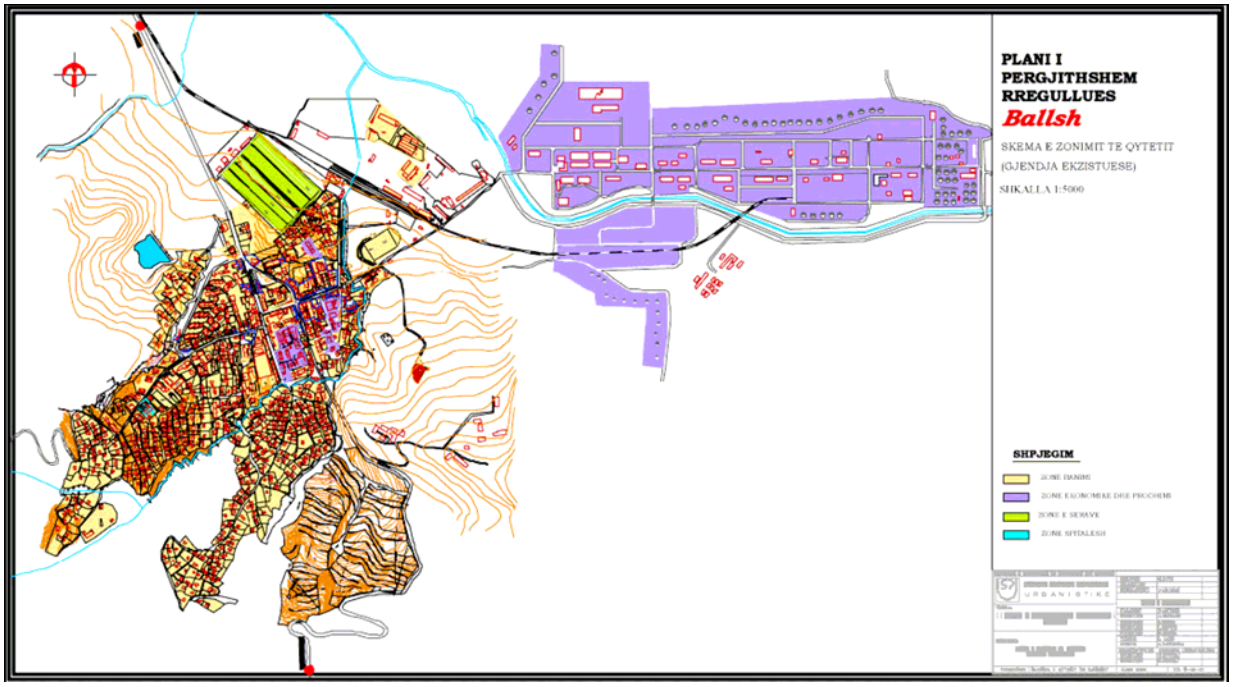

Figure 9. *Master Plan of Ballshi dated 2004. Layout of town zoning. Situation in 2003. 1:5000 scale*
Legend: in light yellow: area for houses; in dark violet: area for productive activities; in green: are for greenhouses, in blue: area for health services

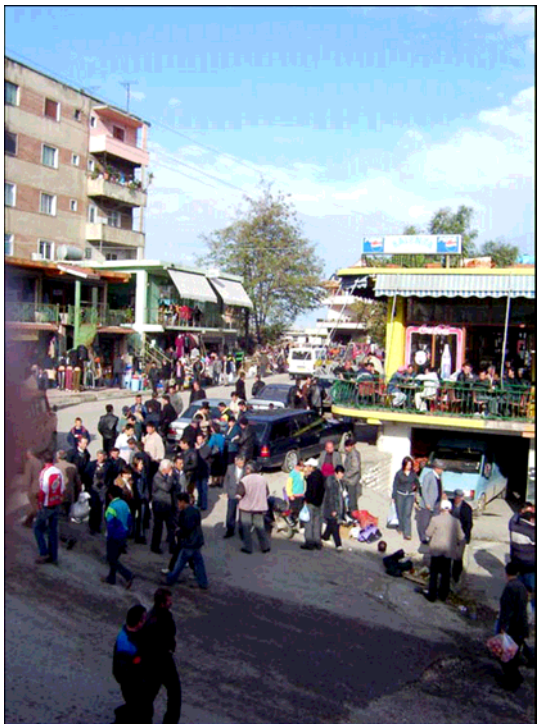

Figure 10. *Sunday morning in the town centre of Ballshi. On top is the state road that leads to Fieri and Durazzo, North-East. South-East it leads to the Greek border, on the left.*

Figure 11. *The residential area of Ballshi characterised by a great number of buildings with one or two aboveground floors built in an area with a slopy ground*

The portion used for social services is 12,1 hectares and its location is not homogeneous in the town centre which is, as mentioned, mainly used as residential area. The surface where facilities for social services have been built is wider that foreseen by the Plan.
The reason is that people living in the nearby villages use this type of facilities for social services. The following facilities offer social services inside the residential area: a nursery school, a kindergarten, primary schools and intermediate schools. According to Plan, the town needs two more nursery schools. If we consider that the inhabitants of the nearby villages also use these services, even if we do not have a clear estimation, the supply of social services should be higher than foreseen by the Plan. Actually, the number of children and pupils attending these facilities is higher that their real capacity.

In the area designed for residential buildings, there is not a designated green zone. Even if the area for housing is made up of single houses built on quite big lots often with small gardens or vegetable gardens, the town lacks a green area characterised by a big park or gardens to enhance the quality of the residential area. Moreover, the town can not count on an area with sport facilities. All sport activities take place in the local stadium which hosts both people from Ballshi and from nearby villages.

Figure 12. *A patchwork of pictures showing the urban area of Ballshi, 2003. In the background are the refinery plants. It is possible to see the state road leading to Fieri and Durazzo on the left and to Greece on the right*

Figure 13. *The inhabited area of Ballshi along the state road that leaves the town center to reach to Greek border. In the background, on the right we can see the town center*

2.3 The current situation concerning productive and commercial activities.

The importance of industrial activities in the area of Ballshi[5] (Fig.14,15,16) is highlighted by the high percentage of areas used for industrial settlements compared to other functions. The table 2.3 shows that the most of the urban territory is used for industrial settlements (51%), while 45% of the territory is occupied by residential settlements. The hydrocarbons refinery plants are located close to the residential area without any natural barrier to limit pollution levels.
The commercial area has its specific location, but it is also spread in the residential area. About 400 people in Ballshi are employed in the commercial sector[6].

Main functions per area	Surface in hectares	Surface %
Residential area	82,5	45,0
Area for hospitals	0,31	0,2
Area for cemetery	0,36	0,2
Area for greenhouses	6,64	3,6
Area for industrial activities	93,6	51,0
Total	183,4	100,0

Tab. 2.3. *Different activities in Ballshi put together according to functionalities (2003) Main functions per area Surface in hectares Surface %*

[5] Some manufacturing companies are located in Ballshi: Astir is a company that produces paints and employs 70 people; Bylis is a small company that produces drinks. Moreover there are some small firms that process agricultural products and wood. It is worth mentioning 17 buildings contractors.
[6] It is estimated that 300 commercial firms in Ballshi employ 400 people and produce a total turnover of 24 million $.

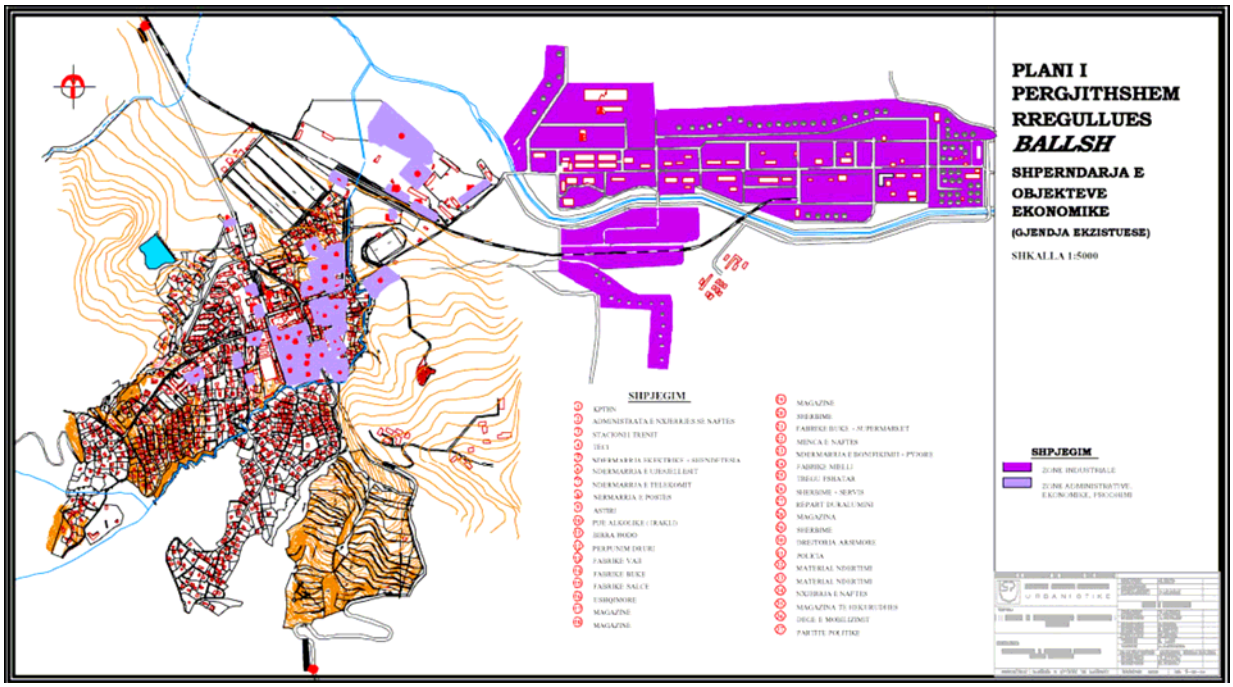

Figure 14. *Master Plan of Ballshi dated 2004. Productive activities in the secondary and services sector. Situation in 2003. 1:5000 scale. Legend: in dark violet: industrial area; in light violet: administration, commercial, manufacturing activities; in red dots: single productive activities.*

2.4 Others Zones: Areas for free time activities, hospital zone, the area for greenhouses

The urban area lacks a space for free time activities. If we consider the presence of the refinery, which is a very polluting plant, it would be necessary to have quite wide green areas to work as a barrier. Unfortunately, although the Municipality of Ballshi is aware of the high level of pollution, green belt areas have never been implemented.
I
n Ballshi the hospital is located in the inhabited area and lacks green belts to separate it from other areas.

The majority of land in the urban area is owned by private people. State-owned lands are only those used for public services and their relevant areas. Today, the Municipality of Ballshi does not own lands where to build facilities for public services or to be used by the residents.The area for greenhouses it is located in the northern part of the town and surrounded by the state road and railway that reaches the industrial area with a quite small railway yard. The surface of this area is 6.64 hectares.
The area occupied by greenhouses produces agricultural products sold both in Ballshi and in the small villages in the nearby. The land where greenhouses were built is owned by the State.

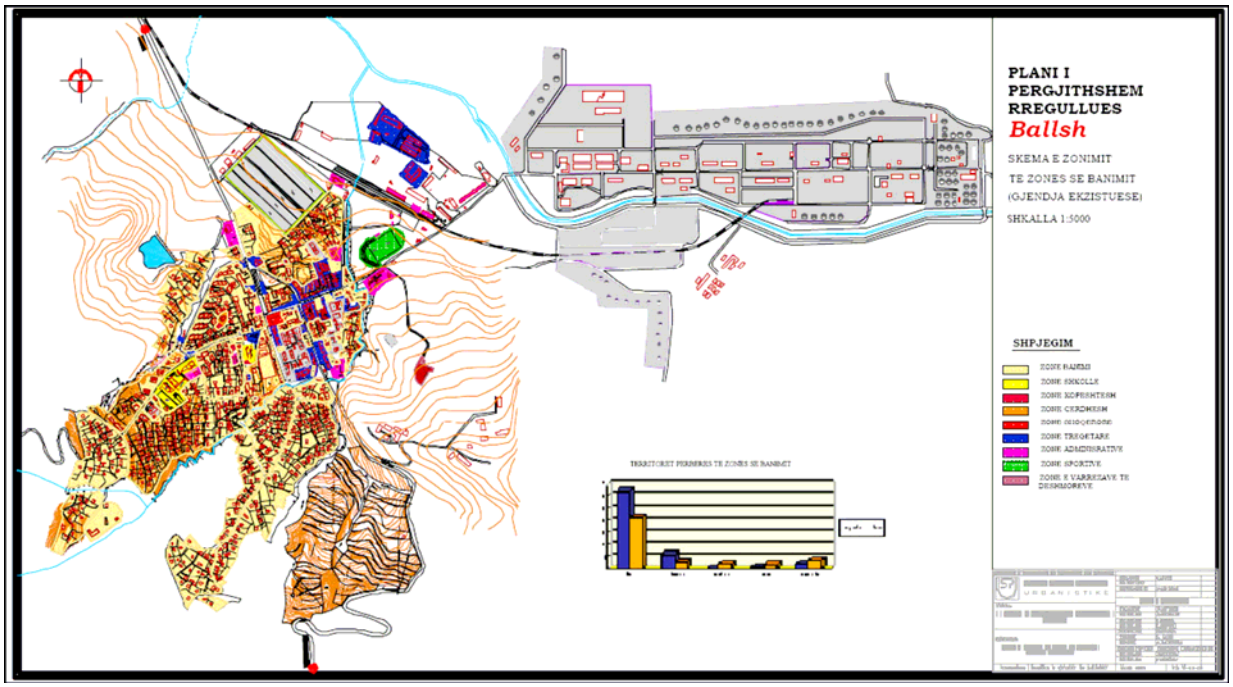

Figure 15. *Master Plan of Ballshi dated 2004. Layout of zoning for residential buildings. Situation in 2003. 1:5000 scale*

3. The development outlook of the urban system in the Master Plan

According to the analysis of data related to demographic dynamics in the past decade and considering both natural and migration related factors the people in charge of drafting the Plan outlined an outlook concerning demographic increase that estimates 16,300 inhabitants in Ballshi in 2023.

The town has developed according to a central model, characterised by a not homogeneous road network that adjusted to the hilly ground. The Master Plan outlines the development over a period of 20 years (Fig.17). The drafters of the Plan started from the idea that the development model for a medium-sized town over a period of 20-30 years is suitable to be worked out around the town centre. This is why they foresee that development of the town of Ballshi should starting from the already existing areas. This development trend will be implemented through the urbanisation of new areas, thus considering both the growth of population and the necessary improvement of the existing housing conditions.
In order to decide where the town will expand from 2003-2023, the following factors have been taken into consideration:

- the most functional solution from the point of view of urban planning,
- the creation of easy connections among the various areas of the town,
- the rational exploitation of the territory,
- the protection of the environment from pollution,
- the creation of the best context for the urban system.

3.1 Outlook: the area designed for residential settlements

The Plan is based on a total population of 16,300 inhabitants in 2003. Compared with the resident population in 2003, the population will increase by 7,300 people. One of the goals of the Plan is to find suitable areas where 7,000 new inhabitants can settle down.

To attain this goal it is necessary to outline the best relations between the overall volumetry of old demolished buildings, the reconstruction/renovation of existing buildings and the construction of new buildings in free spaces with the residential area and in new expansion areas.
The residential can fulfill its functions if we find a balance between the areas designed for houses, those for social services, green spaces and sport activities and those where roads and squares will be built.
The outlook related to the expansion of the residential area focuses on two areas. The first one is located South-East and the second one is located South-West of the already existing residential areas.
The new area which is located South-East on a hilly ground where the level of buildability is lower. The buildings will have two or three floors. The land surface of one lot will be on average 500 square meters.
By taking into account the features of this area, the number of inhabitants that has been foreseen is 3,500.
It has been scheduled to build elements that are necessary for daily life in a residential settlement: besides the areas for residential buildings, there will be play areas for children, areas for social services, for sport activities, roads and squares. Unfortunately, because of the lack of grounds suitable fulfill these functions, it will not be possible to build these areas inside the residential settlement. The solution will be outlined through a more detailed planning study.
The area described above has the following features:

- it is the development of the pre existing residential area
- it borders on the main road
- it is next to the existing infrastructures
- the ground has a low inclination to allow the construction of single houses
- currently, the ground is used for agriculture
- it is only 200 far away from the zone where productive activities are developed

The residential area located in the North-Eastern section is made up of three flat areas, this is why the buildings
according to the new Plan will have maximum six floors. The capacity estimation for this area is 3,500 inhabitants. Considering its location in town and the low inclination of the ground, the Plan foresees to assign some important functions to this area in order to meet pre existing needs.
The main features of this area are the following:

- it is next to the area where productive activities are developed 15
- the inclination of the ground is low, so it is possible to build tall buildings
- the road connections with the existing town centre are favourable
- it is near to the existing infrastructures
- the land is now used for agriculture
- it is 1,100 meters far away from the area with a good density of economic activities

The density of inhabitants according to each solution is: first solution: 192 inhabitants/hectare, second solution: 187 inhabitants/hectare.

Zone	***First solution***		***Second solution***	
	Surface		Surface	
	Ha	*%*	*Ha*	*%*
1 Residential zone	118,00	31,0	120,50	32,0
2 Industrial zone	88,13	23,0	83,13	22,0
3 Commercial zone	24,60	6,5	20,14	5,5
4 Urban park	16,60	4,5	16,60	3,5
5 Belt with high trunk trees	56,00	15,0	61,00	16,4
6 Cemetery	25,00	6,6	25,00	6,6
7 War cemeteries	0.36	0.1	0,36	0,1
8 Roads and squares	43.41	11,6	41,70	11,1
9 Greenhouses	6.37	1,7	6,37	1,9

Total / hectares	378.47	100,0	374,80	100,0

Tab. 3.1. *Territorial balance of the Master Plan for Ballshi (2003)*

Zone type	*First solution*		*Second solution*	
	Ha	*%*	*Ha*	*%*
1 Residential	85,00	72,0	87,0	72,2
2 Health care facilities	0,31	0,3	0,31	0,2
3 Educational facilities	5,10	4,3	6,30	3,9
4 Sport activities	4,60	2,8	6,00	3,7
5 Green	10,10	6,2	7,90	4,9
6 Restricted use area	0,30	0,3	0,30	0,3
7 Social services	12,60	10,7	12,70	11,2
Total / hectares	118,00		120,00	

Tab. 3.2. *Territorial balance of the residential zone (2003) First solution Second solution*

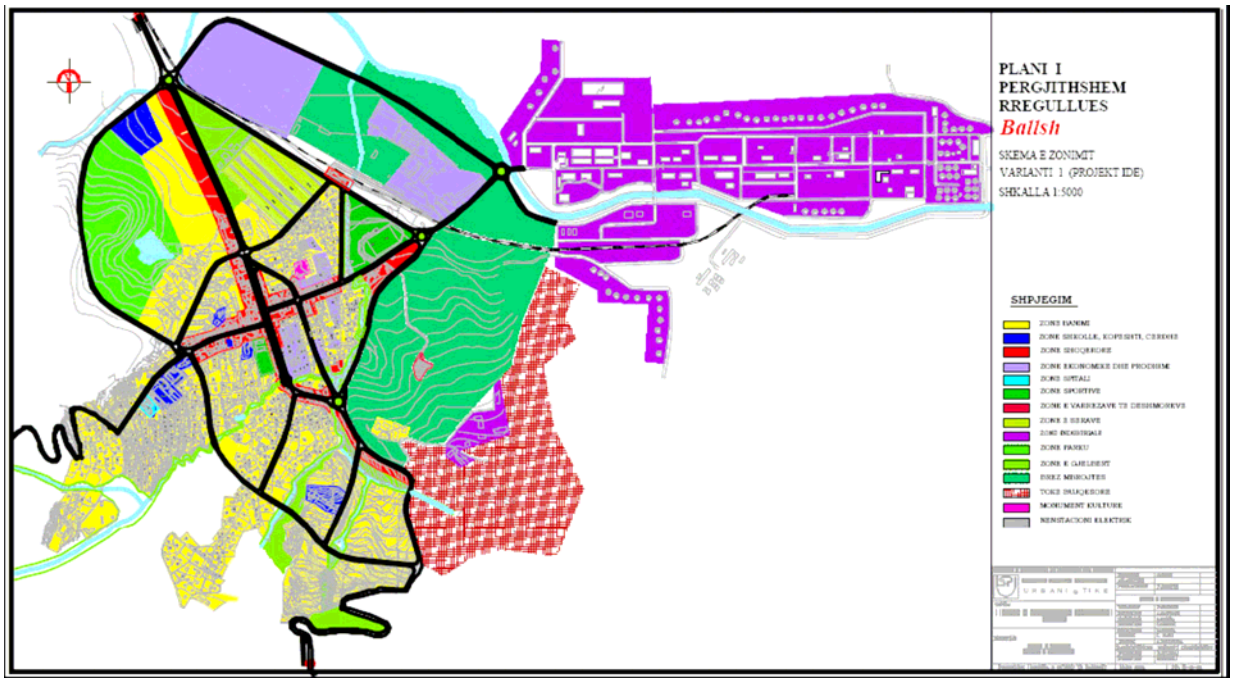

Figure 16. *Master Plan of Ballshi dated 2004. Zoning layout.*
First solution. ILegend: in yellow: area for houses; in blue: area for schools, kindergardens, nursery schools; in light violet: area for factories and production; in blue: area for health care facilities. Scale 1:5000.

3.2 Social services and hospital area

As a result of an increase of the resident population and the expansion of the urbanised territory, it is necessary to find new areas designed for social services. In relation to the benchmarks suggested in Albania, the surface for building this type of facilities should be 17 hectares.
To enhance the overall functionality of the town and pedestrian paths, the focus is on their role of connection among the various social services both in the existing town and in the new expansion area in the North-Western segment. In the two new residential areas, new social services will be located following specific detailed studies. The outlook is to build the following facilities to supply socials services: two kindergartens, two nursery schools, two primary schools, two secondary schools.

Now in Ballshi there is a day hospital facility. Specialist treatments and the most complex operations take place in the hospital located in Fieri. The outlook is to build new medical practices in other areas of the town to reduce travel times. Finding the areas designed for this objective will be a task of specific studies.

3.3 Green areas and areas for sport activities

After carrying out specific studies on the situation concerning the urban area in Ballshi, it has been proposed to create new green areas next to the residential settlements and productive areas.
Green areas will be structured as follows:

- green areas in residential settlements: 5 square meters/inhabitant, total 8 hectares
- green areas for spare time and play: 10 square meters/inhabitant, total 16 hectares
- green areas designed for social services or private houses: 1-2 square meters/inhabitant, total 3,3 hectares

When outlining detailed studies to implement the Master Plan, all benchmarks related to green areas must be respected. The zones close to social services facilities, water courses, slopy hills and road edges will need a special tree cover. Plant species will have to be selected among those with a natural habitat in the region.
To date, the areas used for sport activities neither meet current needs, nor they will meet those of the estimated population by the end of the implementation period in 20 years. The estimated necessary surface is 5 hectares. In order to have a sufficient number of sport facilities, the Plan foresees to use the existing areas and create new facilities in the North-Western segment of the town.
The Plan foresees the creation of new spaces for sport activities and play area also inside residential settlements.

The Plan foresees the creation of a park in the periphery. All projects related to new residential buildings do not foresee the creation of adequate spaces for green areas, sport and entertainment. There are no areas to meet this type of needs in the new residential and commercial zones.
The Plan foresees the creation of a park in the Western periphery, in a suitable area because of several reasons. The first is the low inclination of the ground, the second is the presence of a lake, the third is the quite poor quality of the ground that does not favour an agricultural use and the fourth is its closeness to the residential zone of the town.
The land which is located North-West of greenhouses and currently unused, will host green areas according to the Plan in order to:

- reduce pollution levels due to industrial production
- give a more attractive image of the town to visitors
- increase the number of green areas in favour of all inhabitants

The Plan foresees the creation of a belt made up of high trunk trees in order to reduce level of pollution in residential areas mainly caused by the refinery plant. This green belt aims at limiting the town growth in this direction.

3.4 Areas with building of monumental value

In the residential neighbourhood 28th November are the remains of an ancient Christian church dating back to the 6th century, which represents an important historical period of this area. The Plan foresees to create a green space around this church.

3.5 Outlook related to the area designed for the hydrocarbons refinery

The ARMO hydrocarbons plant was built in an area separated from the town and is the most important productive plant in Ballshi, both in terms of produced value and employed personnel. Both the

Municipality and the owners of the company think it is useful to promote and develop the activity of the plant in Ballshi even if they are aware of the impact of pollution.
The following measures have been outlined to reduce pollution levels:

- enhance production processes
- reduce the polluting surface inside the refinery plant and upgrade green areas inside it.
- create a green belt to protect the area between the urbanised area and the refinery plants
- upgrade purification of wastewaters produced by refinery plant

Figure 17. *Ballshi. From the state road towards the ARMO refinery located on the bank of the river Gjanica, on the right in the background*

Figure 18. *Ballshi. View from the hill: the ARMO refinery, the railway, and in the background the inhabited area on the side of the hill.*

3.6 Outlook related to the development of commercial activities

Commercial facilities are located in the urban area and should gradually centre on a single area to reach the following objectives:

• overcome potential problems in the inhabited area
• facilitate the spreading of economies of scale and aggregation-ecomomy to attract people in the central area of the town both supplying services and leisure related activities.

The area of concentration for commercial activities should be separated from those designed for residential settlements, green areas and sport activities (3). Although until now the municipal government has not forwarded any proposal for building new commercial facilities, the Plan has anticipated potential future requests to build new facilities in order to avoid problems that could arise from their building without following any planning criteria.

3.7 Outlook related to the road network

The development project of the road network foresees two alternative solutions. The entrance into the urban area is foreseen next to the last bend of the railway, before reaching the railway station. Here, vehicular traffic will branch off to four directions through a road junction. The first direction goes westwards to the hill and will pass behind the artificial water basin next to the hospital, joining the state road at the third bend after getting out of the town centre. The second direction overcomes the railway and reaches the ARMO refinery. The third branch is the existing road that will be enlarged to four lanes separated by a traffic island.
The third branch is parallel to the railway, stretches next to the railway station and the stadium, in front of the new residential neighbourhood and connects to the existing exit point of the city.
This adjustment project of the road network also foresees some new road in the urban area. A new road should connect the existing entrance point to the railway station and then reach the production plants of the Astir company, which produces paints and employs 70 people. The difference between the two plans concerns the solution proposed to connect the new development area located southwards with the road network.

The first solution foresees that the new developed area is crossed by a new road that will follow the same track of the already existing one. Moreover, there will be one more road located southwards that stretches along the river and crosses the new area. According to the second alternative, these two roads have their carriageway in the nearby of the river. If we take into account the future predictable increase of vehicular traffic, roads have been planned with two carriageways and sidewalk.

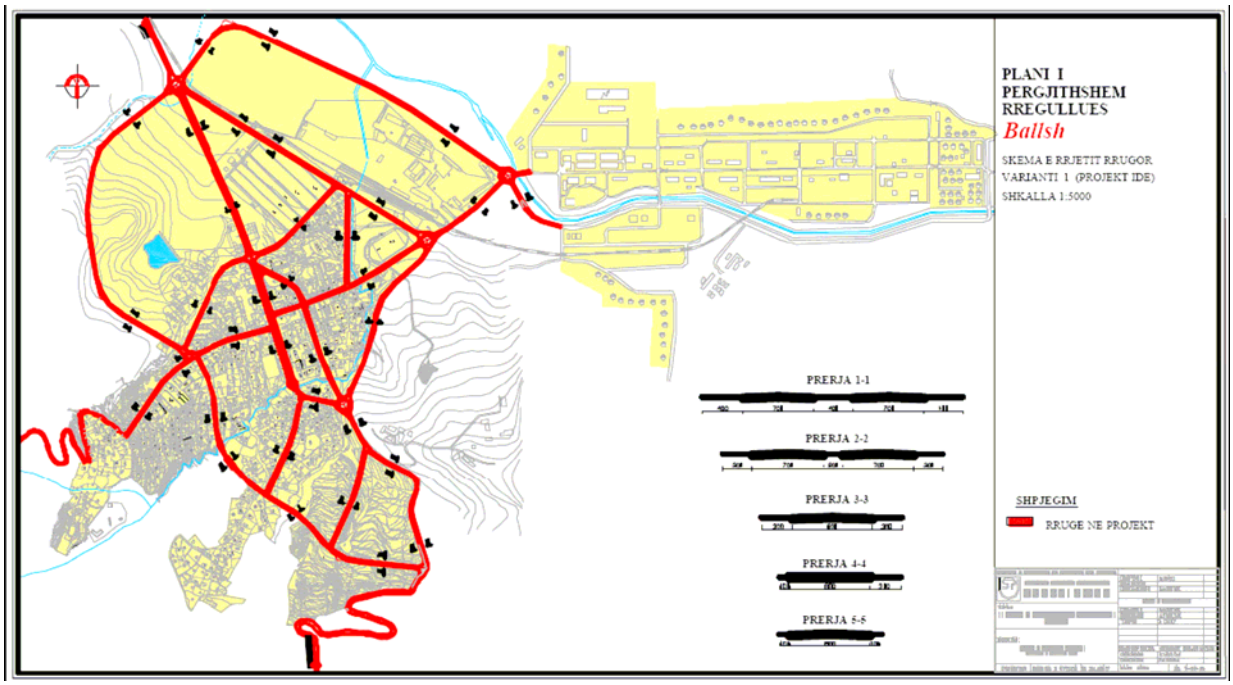

Figure 19. *Master Plan of Ballshi dated 2004. Layout of the road network.*
First solution. 1:5000 scale. Legend. In red: roads whose project is underway Profile 1-1, Profile 2-2, Profile 3-3, Profile 4-4, Profile 5-5

Figure 19. *The railway station in Ballshi located between the inhabited area, on the side of the hill (on the left) and the refinery*

3.8 Steps of implementation of the Master Plan

As concerns the development of the designed residential area, the first expansion phase will take place in the Northern area of Ballshi, because:

- there are already infrastructures and social services
- the costs for preparing the area are lower since the ground is flat
- the higher density in residential buildings allows the settlement of a higher number of inhabitants per unity of surface

As regards the expansion of the commercial zone, the first step will be the transformation of the areas in the Northern part. As a result, commercial activities currently settled in or in the nearby of the residential area will move into another area.
At the same time, the works for creating the new park in the periphery should begin. The town expansion will have to be accompanied by the completion of the road and infrastructural network.

4. Reference to the regulations on urban planning and urban planning procedures enforced in Albania

In Albania legislation on urban planning is based on the urban planning law 8405 (of 1998) and the implementation Regulation of 1998. The former urban planning law had been approved in 1993.
The aim was to monitor and foresee the development of changes related to urban planning, as concerns both the forecast and the planning phase related to the territory, infrastructures, buildings and the following implementation steps.
Since 1993, the Albanian territory has changed deeply. The possibility for the people to move from the mountains or rural areas to urban areas, such as Tirana, Durazzo, Valona, Scutari, Saranda, Fieri has caused several problems both related to the use and ownership of land and its exploitation.
The population and economic operators have not complied with the law on urban planning (1993), except some cases. Almost all residential and productive buildings were built without complying with the regulations in force.

In the Law on urban planning dated 1993 the issue concerning abusive buildings and unauthorised land occupation was not dealt with because it was not a real problem before the introduction of this Law. This is why it had been necessary to pass a new Law on urban planning in 1998. This Law as a similar structure to the one dated 1993.
A new chapter was added concerning abusive buildings and the illegal use of land. As a result, it has been possible to improve the monitoring both on older buildings and new buildings under construction, thus limiting the problem of unlawful building and use.
Because of these changes, many Albanian laws have been modified. As a consequence, the legislation on urban planning had to adapt to these changes. A working group has been created to modify the current Law on urban planning, also considering these changes. The draft of a new Law has been outlined and several people, institutions and associations have been working to express their point of view about it.
The Law on urban planning comprised: various types of urban planning studies, the object and structure of each study, the different steps of an Urban Plan, the people and bodies or institutions allowed to carry out urban planning studies, the bodies allowed to take decisions concerning urban planning studies and architectural projects, rights and duties of private and public institutions working in the field of planning, architecture and so on. One type of urban planning study foreseen by the Law is the Master Plan. It is usually drawn up for every city.

Four steps must be followed in order to draw up a Master Plan:

- The Municipality draws up a Preliminary Project and General Information Framework
- Approval of the Preliminary Project and General Information Framework both by the Commission for Adjustments in Municipal Areas and the National Council for Territorial Adjustment
- A private or public institution draws up a Project Outline
- Approval of the Plan Project both by the Commission for Adjustments in Municipal Areas and the National Council for Territorial Adjustment. 21

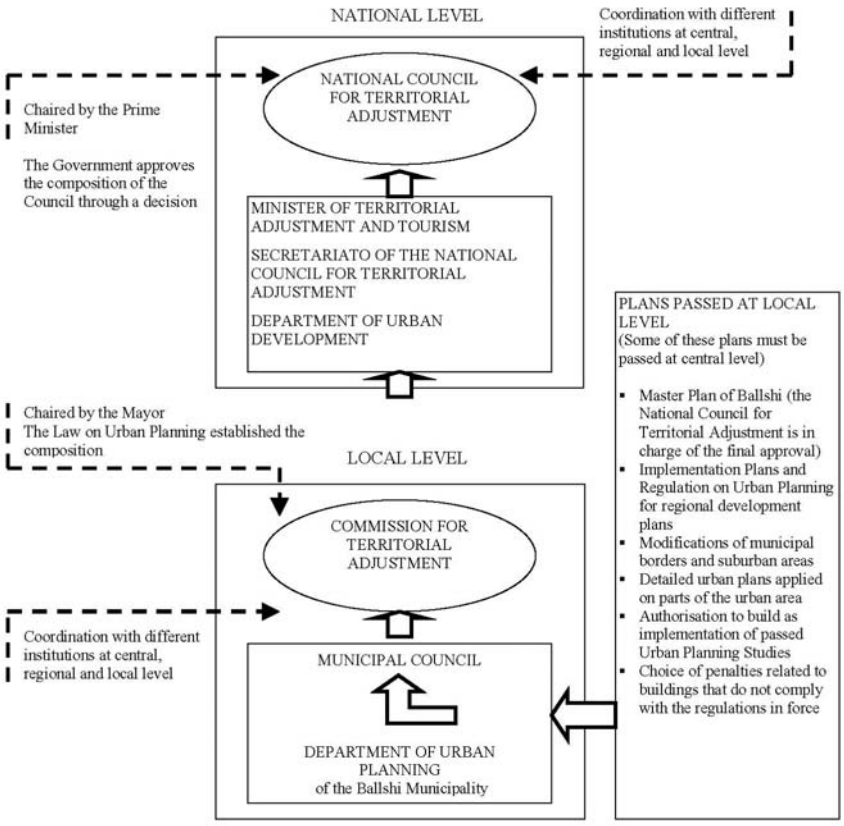

Figure 20. *Diagram summarising the organisational structure and decision-making process in the different initiativesfor development to be implemented in the territory of an Albanian municipality*

4.1 Drafting of the Preliminary Project and General Information Framework by the Municipality

The preliminary Project and General Information Framework contains all information and data related to the town and its territory, so that the working group obtains the necessary information.
All the information is about history, climate conditions, demography, productive activities, the current situation and trends. This General Information Framework is based on the updated map of the city showing all the existing buildings and information related to the use, time of construction, number of floors in each building, the construction materials used, technological infrastructures such as roads, the water network, the sewage system and electric network. This important document contains a map of land use 1:2,000 or 1:5,000 scale and a proposal outlined by the Municipality about the future use of grounds in order to outlined the future development of the city. According to the Law, the Municipality must draw up the Preliminary Project and General Information Framework,also in collaboration with foreign consultants.
The Ballshi Municipality neither has the competence to draw up the Preliminary Project and General Information Framework, nor financial resources to appoint foreign consultants. ISPU is the only public institution specialised in the field of planning and collaborated with the city of Ballshi to draw up the Preliminary Project and General Information.

4.2 Framework for the Master Plan

The approval must take place at two levels: the municipal and state level. The local body is the Commission for Adjustment in the municipal area, while the state body is the National Council for Territorial Adjustment.
After giving green light to the Preliminary Project and General Information Framework, the Municipality can collaborate with a private or public institution to draw up the Plan. The Master Plan is structured in three main parts:

- Maps at different scales
- Plan report
- Regulations to implement the Plan

The Plan aims at meeting the current needs of the whole community and promoting future development over a period of 15-20 years.
The Municipality of Ballshi has collaborated with the ISPU to draw up a planning study for the future town development. In the ISPU a group of specialised people has been set up and comprises: urban planners, a technician specialised in the fields of roads and traffic, a technician specialised in the field of water networks and sewage system, a technician specialised in the field of networks for the transportation of electricity.
Two technicians from the Municipality of Ballshi collaborated with the working group of the ISPU on the Plan. This collaboration aimed at understanding the current situation in the municipal area and the requests by the citizens.

The Master Plan includes:

- Cartography: 29 maps
- Plan report: 100 pages
- Regulations for the implementation :20 pages

The cartographic documentation includes studies carried out by different institutions: studies on the road network and railway in the area of Ballshi, studies on the electricity network; studies on environmental protection; the Master Plan of Ballshi passed in 1970 by the Council of Ministers;

thematic maps showing the current situation that can help evaluate the living conditions in Ballshi and forward proposal for the future development.
The informative report includes all explanations, figures, graphs, charts in order to facilitate the understanding of the analysis and outlook for the future development of Ballshi. These regulations include all regulatory elements that allow the implementation of the Plan.

Procedure to follow in order to get the approval for a building project at local level. This procedure, set by the Law, is sometimes partially respected. During this phase, the coordination between the local and national level should guarantee the approval of a Project that ensures to sustainable development
If the area concerned is state-owned, the Municipal Council is in charge of approving the application to get a building concession, if the area concerned is private, the City Planning Commission is in charge of taking decisions

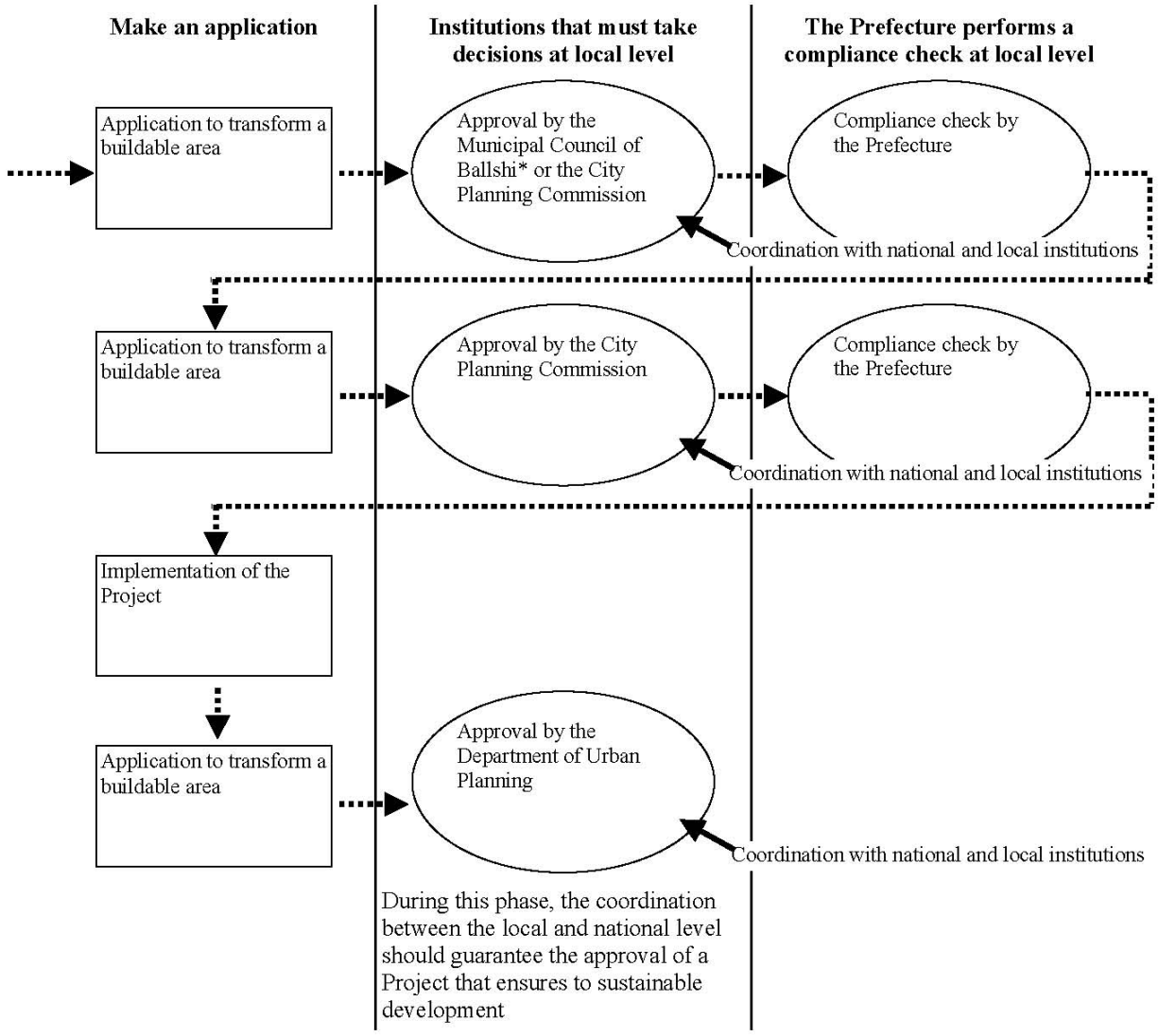

Figure 21. *Relations between the Municipality of Ballshi and the Prefecture of Fieri*

The Plan is available to the citizens for a period of 30 days in order to let them express their opinions to the Municipality in written form or within a public meeting both on the Plan Project and on its specific

elements. The Commission for Adjustments in Municipal Areas takes into account all written observations and the opinions expressed during public meetings.

The Municipality is not bound to reply in written form, according to the Law on urban planning currently in force.
The Commission for Adjustments in Municipal Areas has approved this Project provided that some parts are improved.
If necessary, the working group in charge of drawing up this Project, prepares a new version of the Project that takes into account the observations expressed by the Commission for Adjustments in Municipal Areas. The National Council for Territorial Adjustment chaired by the Prime Minister decides upon the approval of the General Master Plan.
The General Master Plan comprises a period of 15-20 years for the development of the municipal area. If the municipality decide to introduce modifications in the Plan, these modifications must be approved both at municipal and national level.

Figures and tables in the article

Figure 1 has been published by Atlasi i Shipërisë (2003),Tirana
Figures 5, 6, 7, 8, 9, 12, 14, 15, 17, 20 have been made available by the ISPU, Tirana
Tables 2.1, 2.2, 2.3, 3.1, 3.2 have been made available by the ISPU, Tirana
Figures 2, 3, 4, 10, 11, 16, 18, 19 are pictures taken by Giovanni Sergi
Figures 21 and 22 block diagrams published by UNDP Albania & Co-PLAN, 2003

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