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TITLE: **TIRANA, NEW METROPOLIS: REINVENTING A NEW SUSTAINABLE (SPATIAL) IMAGE FOR ALBANIA**

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3.1 TIRANA, NEW METROPOLIS: REINVENTING A NEW SUSTAINABLE (SPATIAL) IMAGE FOR ALBANIA

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Most of the urban growth of Albania has taken place within Tirana-Durrës-Fushë Kruja triangle. For the past 24 years Tirana has been expanding organically beyond its administrative boundary, especially in the northwest and south. Similarly, all Tirana's neighboring local governments have been expanding in size and increasing in population forming an urban agglomeration, which is part of Tirana-Durrës metropolis.

This paper builds on the case of an area[1] situated at the core of Tirana-Durrës metropolis, northwest of Tirana. The area gives the impression of a natural amphitheater shaped by the mount Dajti (east), the hills' systems (south and southwest), and the Ishmi spill openness (northwest). It is surrounded by Tirana-Durrës axis (with more than 250 businesses and around 15,000-20,000 daily commuters, and a number of Universities adding up to the cluster-formation potential[2]) and the North axis crossing the "spontaneous" urban settlement of

1 For reading convenience we will refer to our study area as "the area"

2 This data are estimated through field surveys (social-economic and visual) carried out by POLIS University in the framework of master workshops and research studies.

Kamza. The international Airport is found at the edge, in the northwest. The area is also trespassed by the railroad, heading towards Durrës and the North, and has a surface of more than 50 Km2, currently administrated by 7 local governments (Fig1).

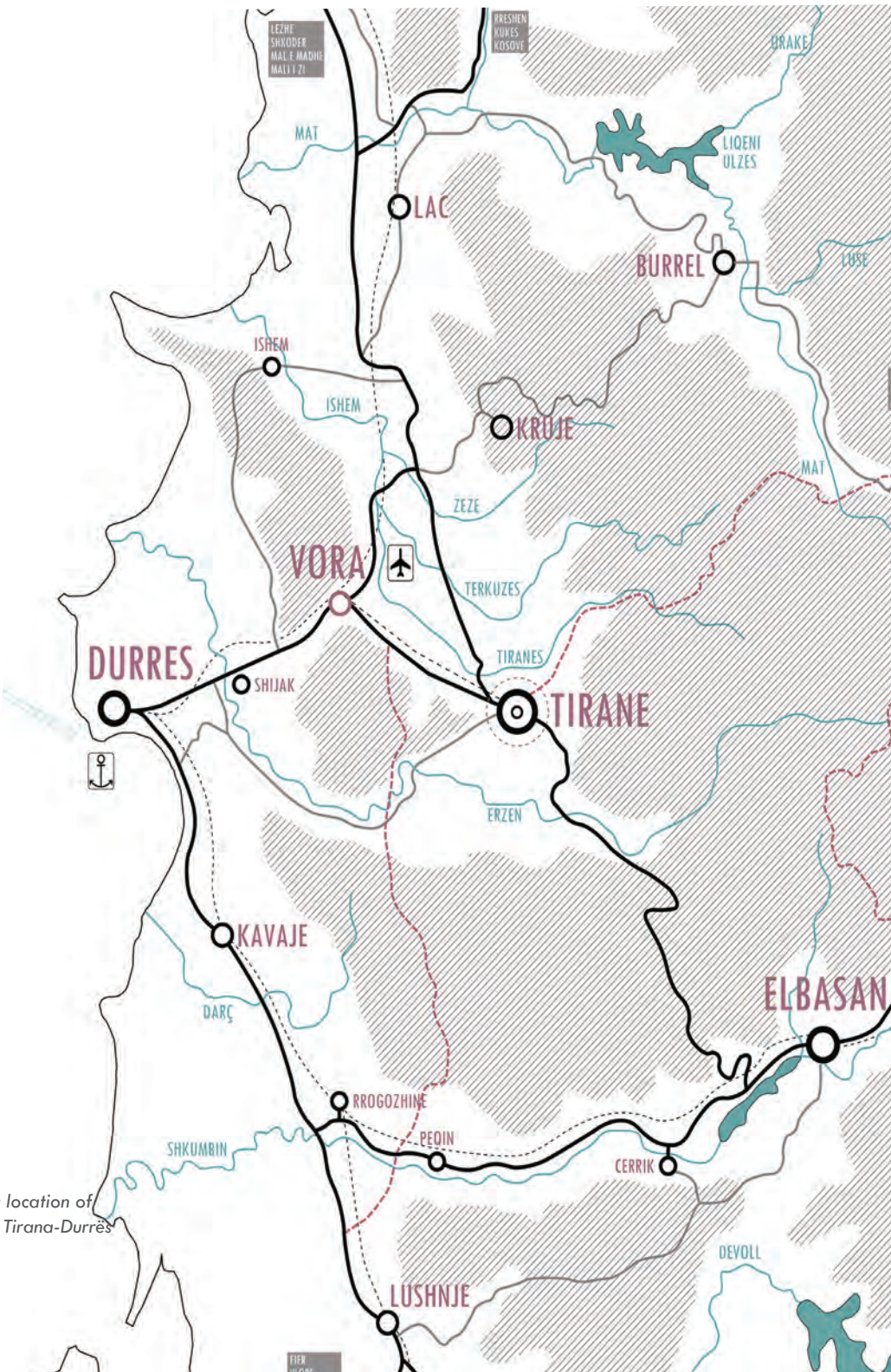
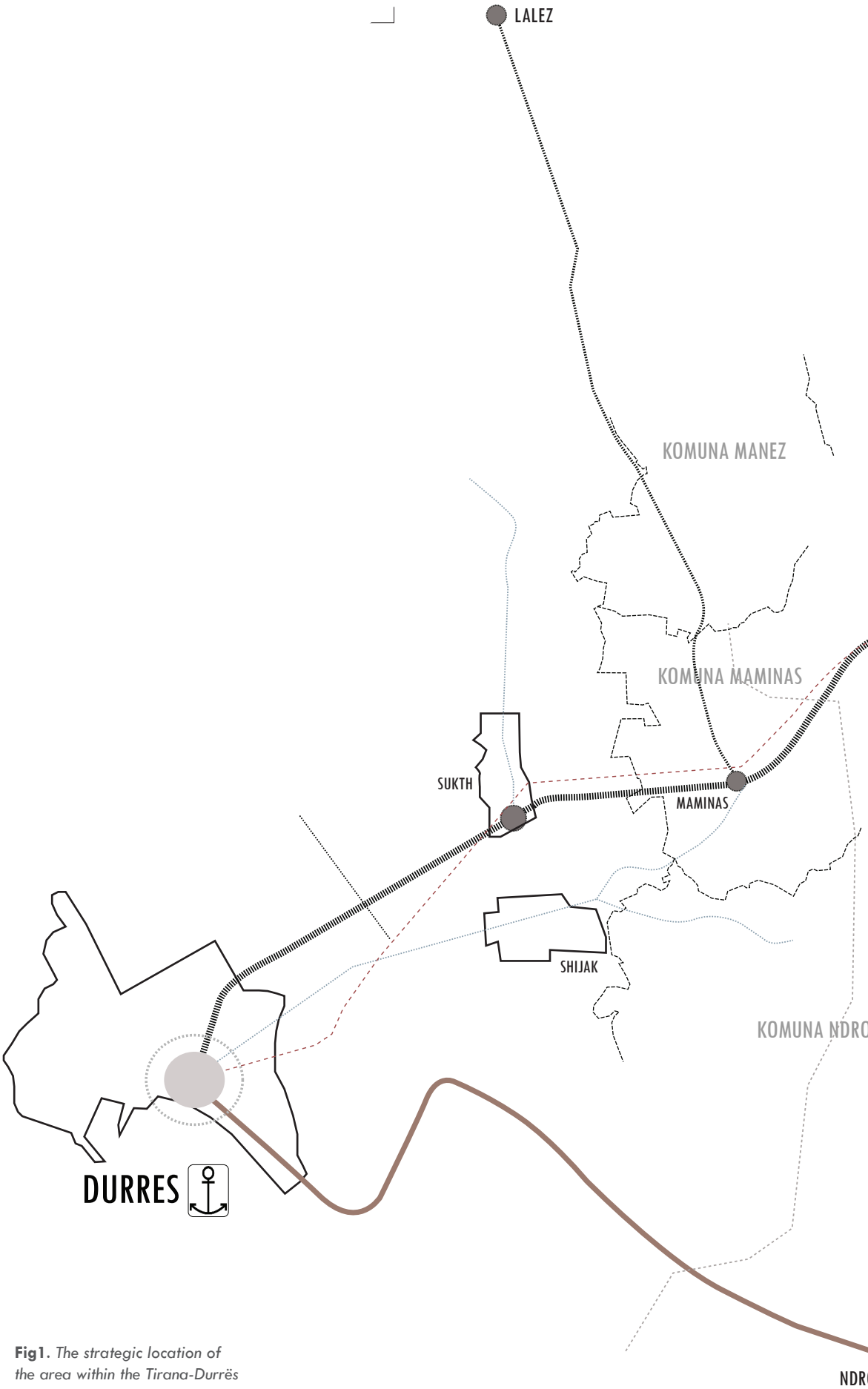


Fig1. *The strategic location of the area within the Tirana-Durrës metropolis*



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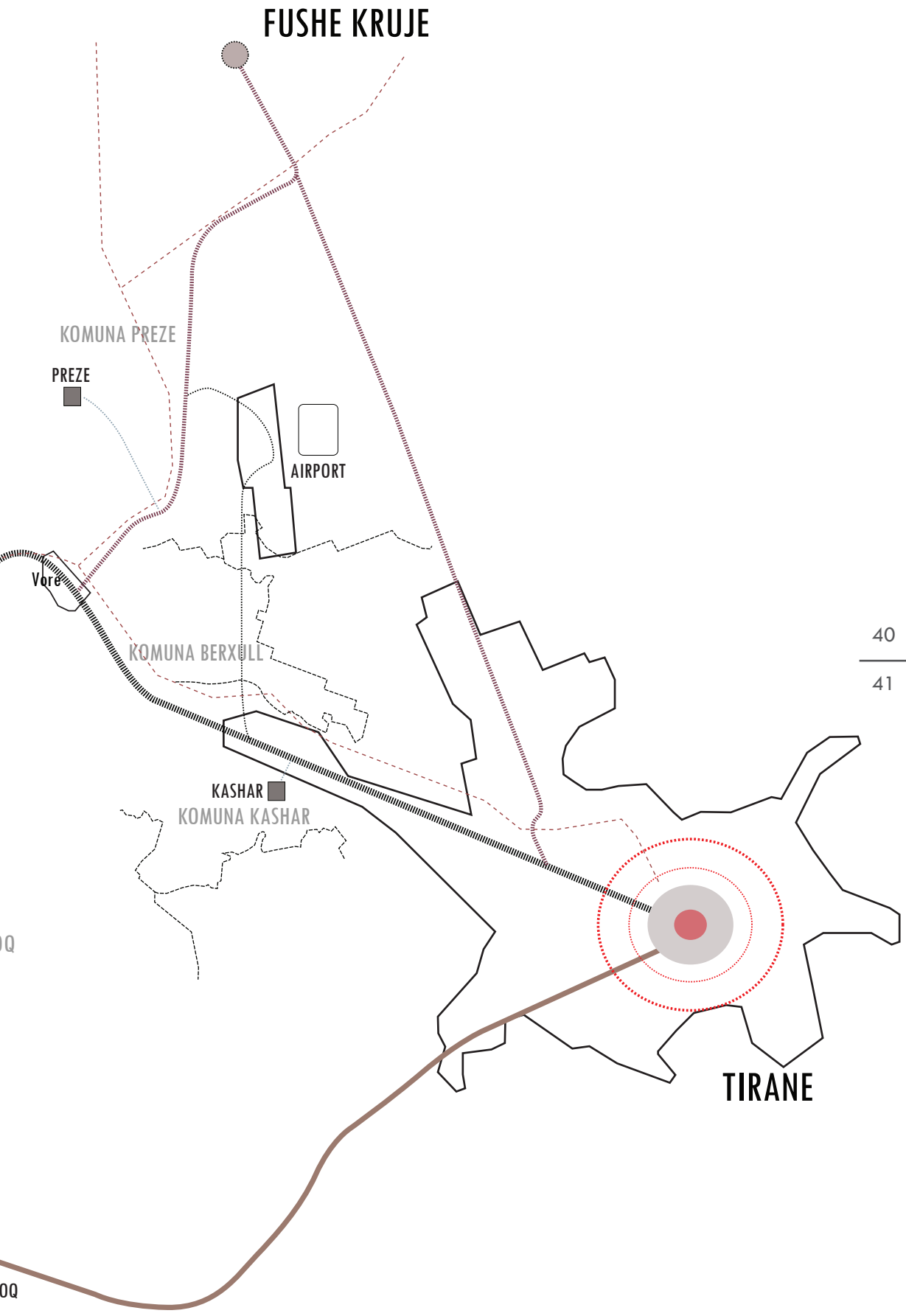

FUSHE KRUJE
KOMUNA PREZE
PREZE
AIRPORT
Vore
KOMUNA BERXULL
KASHAR
KOMUNA KASHAR
TIRANE

With the upcoming territorial reform the area will be under the jurisdiction of three local governments, Tirana, Kamza, and Vora.

Before the 90's the main land use of the area was agriculture, with few supporting settlements in the center of Kamza and in the south-east. Because of this agriculture potential, the Agriculture University of Tirana was, and still is, located within the area. Urbanization has converted large portions of the agricultural land stock, but still the latter remains twice as large as the urban part (Fig 3). The area is adjacent to the "Josif Pashko" construction industrial zone, which extends within the area with a brick factory, currently out of use. An abandoned former coal mining industry is also situated within the area. The area's estimated population is 55,000-60,000 residents and more than 10,800 buildings (92% erected after 90's) are identified through the areal

Fig 2. *Exploratory images*

photo. Field surveys reveal for rather high unemployment and 57% of the employed working in the service sector.

The land use analysis focused on the identification of 3 systems (urban, natural, agricultural) and on 4 interventions (built environment, infrastructure, landscape, agriculture), provides key information and proportions between activities, developments and behavior towards the environment. A solid-void picture defines a gradient of porosity moving radially from the entrance of the area towards the Northwest (Fig 4). This matches also with the 1km^2 cell population density analysis that defines a boundary for the Tirana agglomeration.

Fig 3. *Current land use structure*

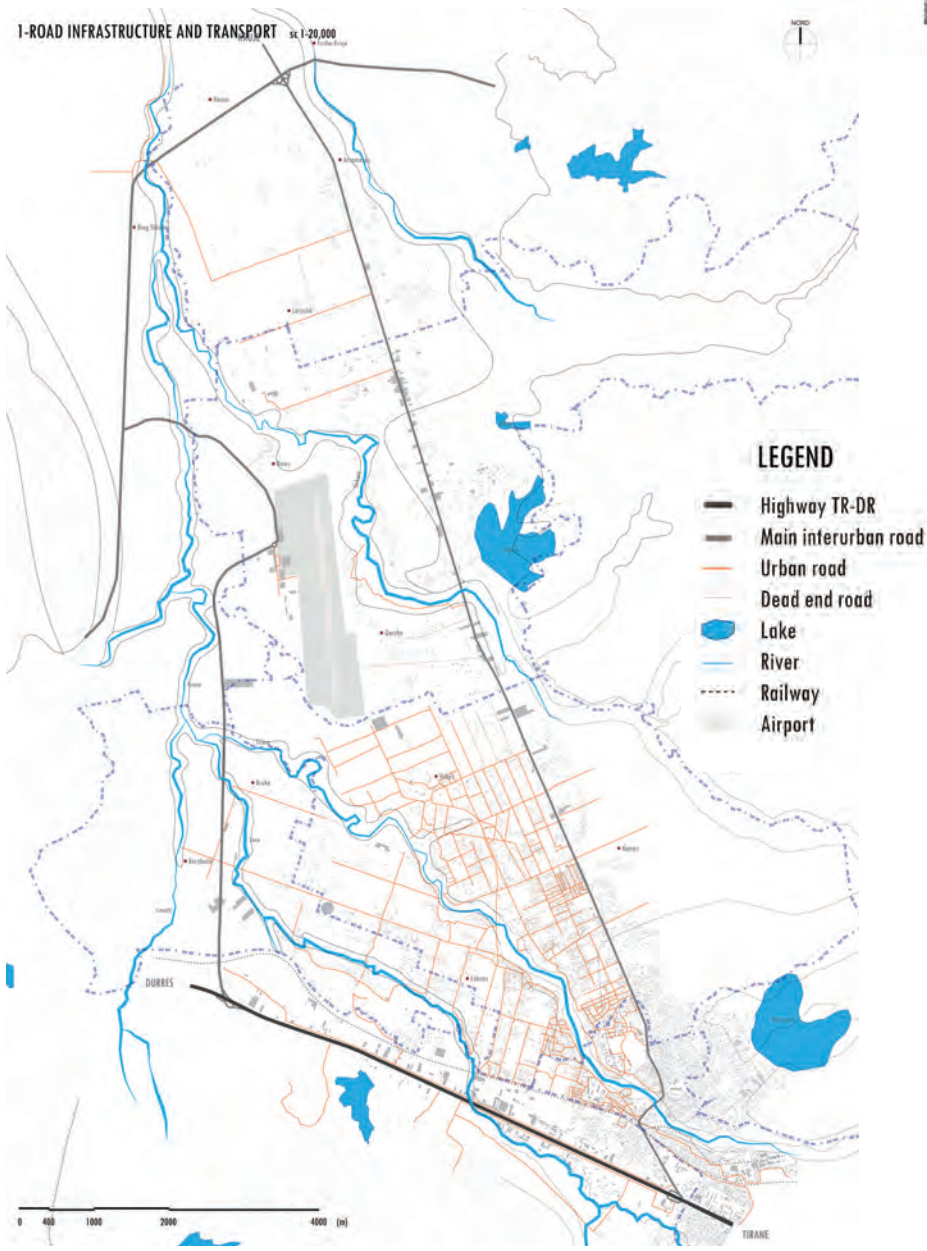


Fig 4b. *Systems analysis*

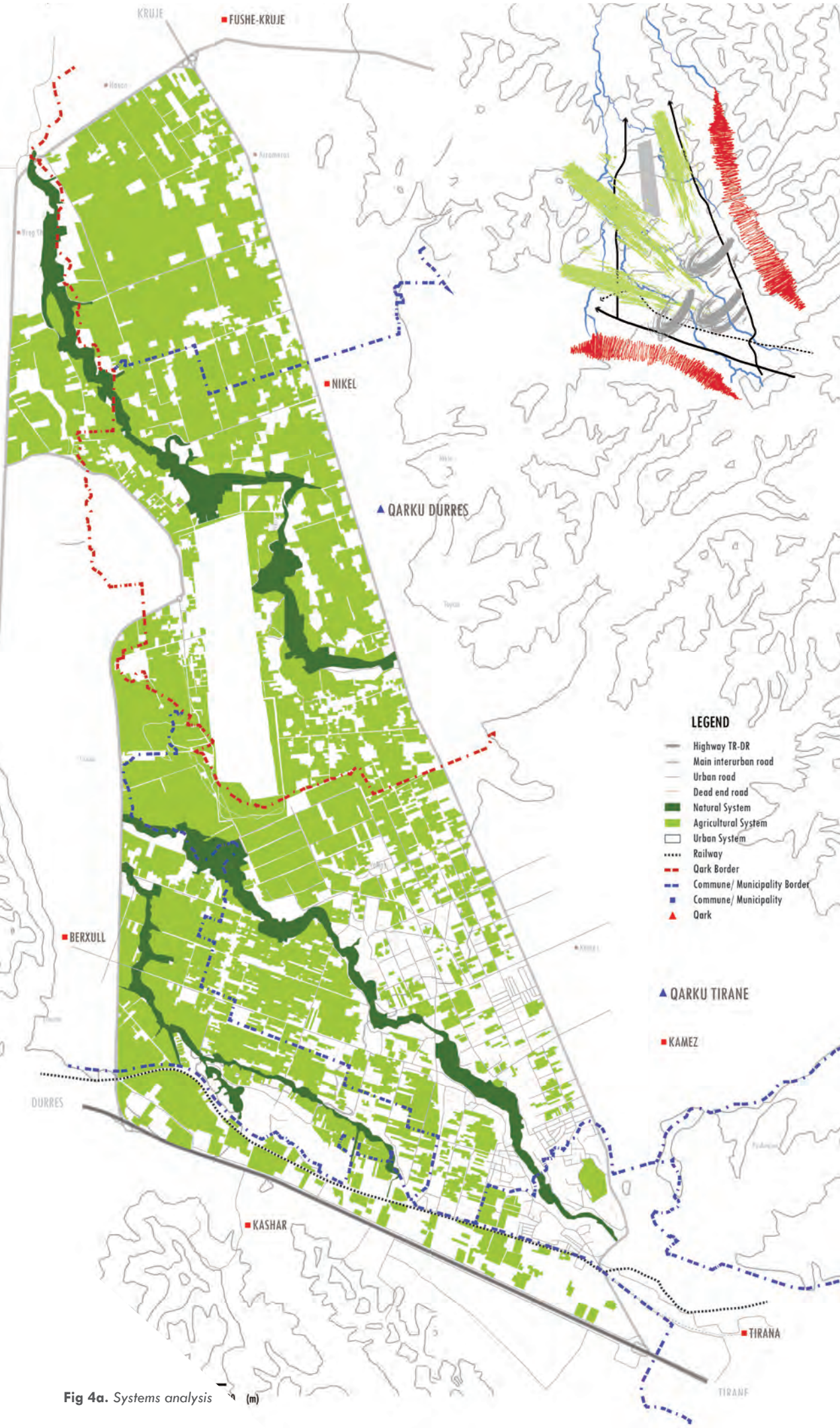
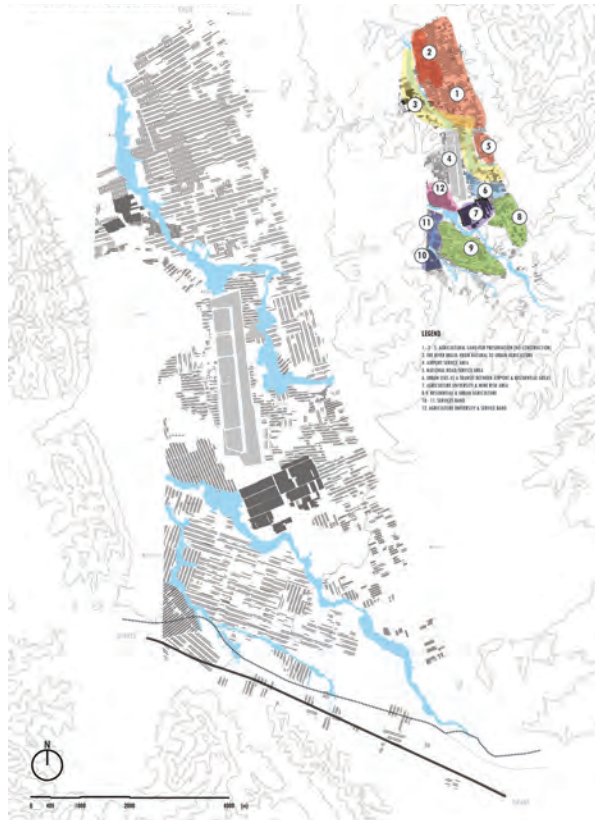


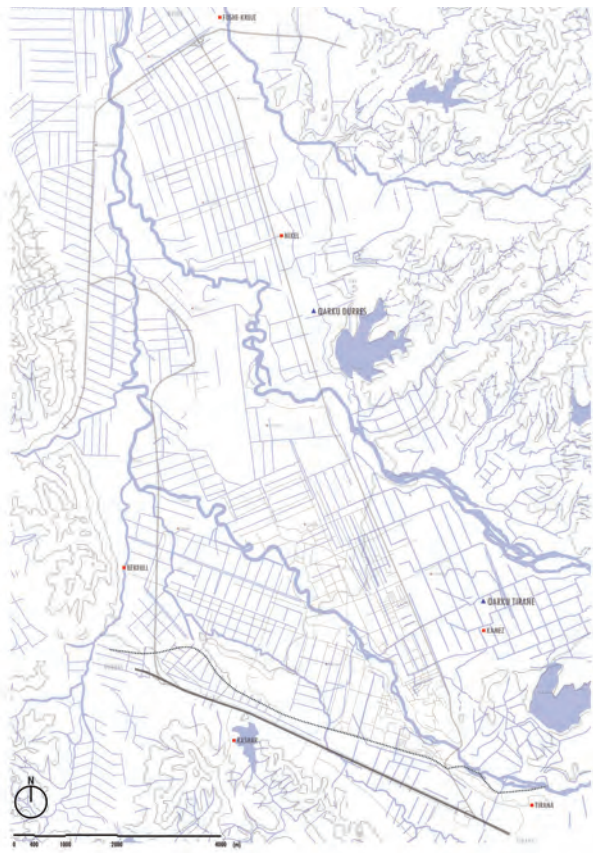
Fig 4a. *Systems analysis*

Due to the fact that in the past agricultural use dominated the area, any zoning or spatial reading attempt uncovers land pattern linked to agricultural activity, and a rich network of drainage and irrigation, which has currently shaped the road network. Apparently water flows will also [re]direct the future mobility configurations of the area. [Urban] Farming, for local and family use, is quite diffused activity, providing potential for urban agriculture promotion/support.

The eastern limit of the area (across Kamza) contains settlements' structures with higher density concentration close to Kamza center and a mixed land use characterized by a balanced distribution of commercial activities and housing, but dominated by housing when moving towards the center of the area. Land values are also higher in the Kamza center (figure 6). Former villages are hardly recognizable as internalized by the nearby centers (Kamza, Kashar, Vora). There is almost no (clear) spatial interruption between them and the rest of the settlement[3]. The stronger attractors of the area seem to be the higher density poles, the former villages (when identifiable), the airport and the perimeter corridors. The dominant typology along Tirana-Durrës axis is made of large structures hosting mainly commercial activities. A very distinct spatial typology is the one of the airport to the Northwest, while former industrial and mining sites in the area (now depleted and out of use) offer the potential for not simply reviving, but also providing space for missing public services.

The hinterland (between Laknas road and Lana valley) has a gradual decrease of densities, dominated by two-three story family houses. From a typological point of view, the minor settlements of communist times stand as unique exceptions to the recently built environment and as leftovers from the previous functional organization





3 Though the area is composed of different spatial structures, these can only be identified in a careful analysis/reading of the area and are not visible at first sight. In fact the whole urban structure of the area, excluding the Tirana-Durrës axis, looks like a single large settlements with varying porosity, accessibility, density and land prices.

Fig 5. *A synthesis of the agricultural system*

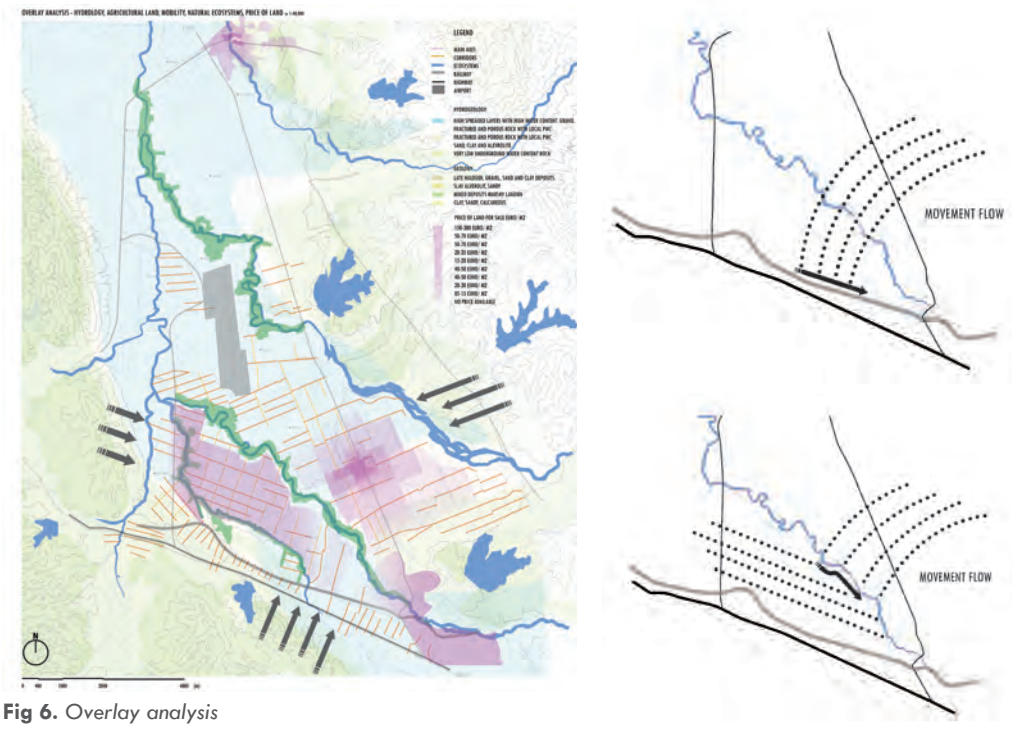


Fig 6. *Overlay analysis*

of the area. Factory and state owned farms (cooperatives) workers used to live there.

The PCR[4] varies between 40-60% in the dense areas and it may even reach 100% in some isolated cases. The less dense area has a PCR of 10-20% where agricultural land subdivision has happened. But in some cases PCR remains 1% or less as subdivision has not taken place yet. The size of the agricultural parcels varies from around 2000 m^2 to 2 ha. Variation is due to land subdivision or merging. While merging has happened for agricultural purposes, subdivision is linked to housing. Housing plots are usually between 300 and 600 m^2. Under the same logic, FARs[5] vary from 5 (isolated cases) to 2 in dense areas and as low as 0.2 and 0.01 in low density or agricultural land.

4 Plot Cover Ratio in %
5 Floor Area Ratio in m2/m2

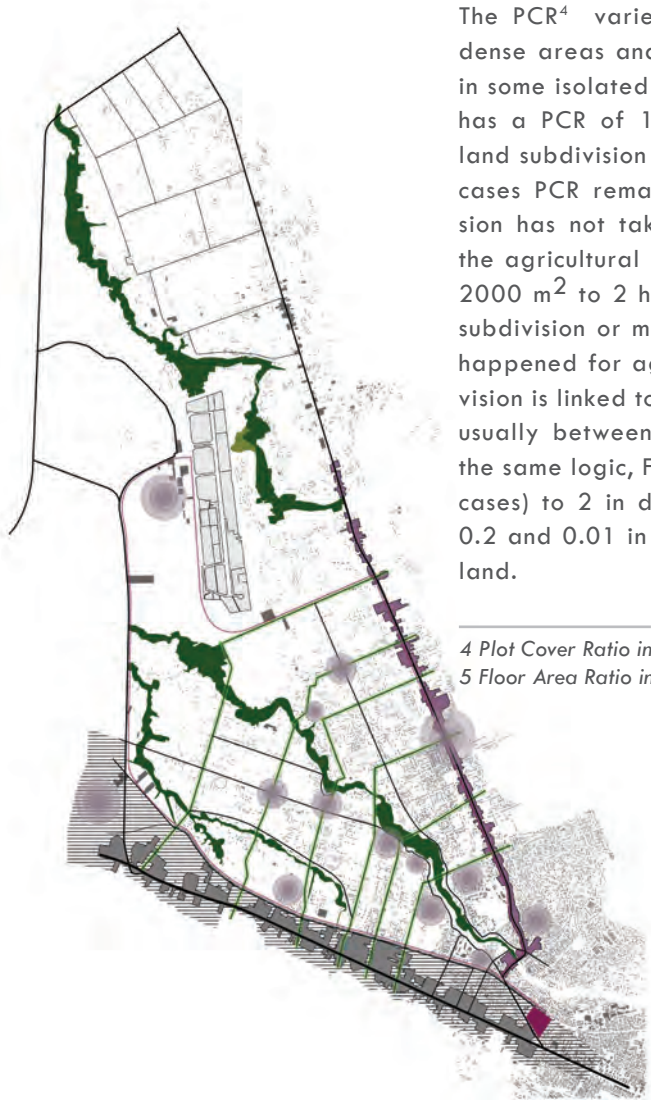


Fig 7. *Centralities and development axis*

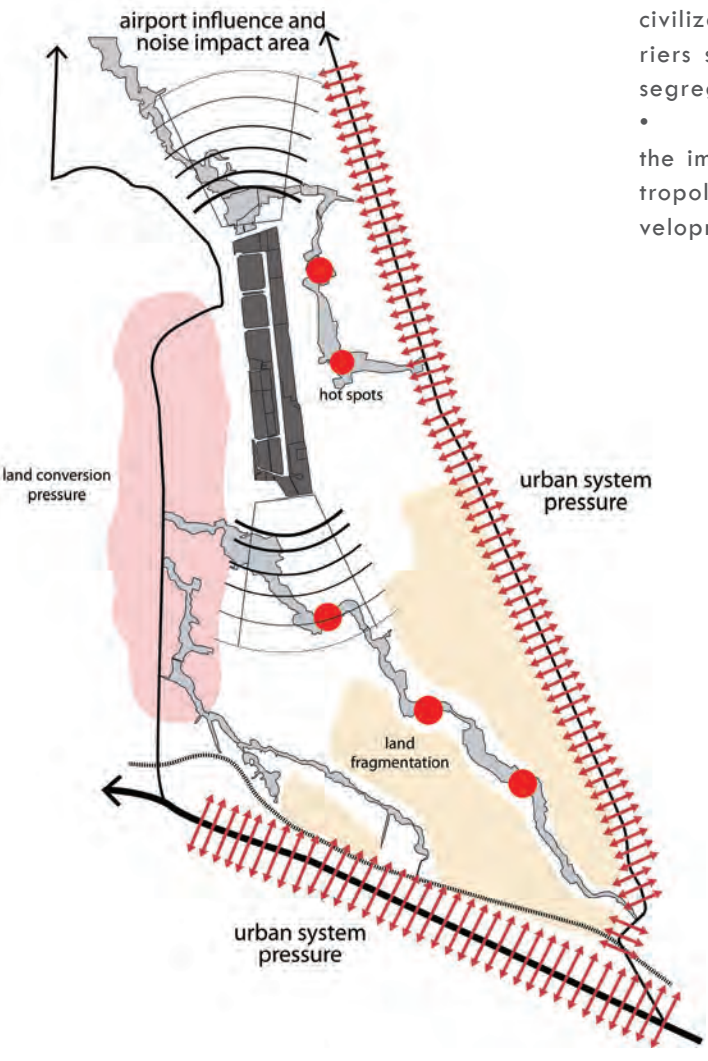
Infrastructure and services are deficient in the area showing for low access to quality services and high risk of environmental pollution. The current situation reflects: i) the spontaneous urbanization, in absence of public response for investments; ii) the fragmentation of LGs[6]. Infrastructure is being built across agricultural land, thus leaving room to emerging opportunities for urban development that will further fragment agricultural land and the natural system (river banks and the riparian areas). Water supply is fragmented on different systems, does not cover the entire area and there is no 24-hours supply service. In turn, people rely on individual wells. The drainage and irrigation systems are hardly maintained and most are used also as sewerage. Only former settlements have conventional sewerage infrastructure, while the hinterland and the south axis rely on septic tanks (wholes) or discharge directly through irrigation channels to the Tirana and Lana rivers, without any treatment at all.

The road network (defined by the drainage and irrigation canals) has followed the urban expansion. The quality is good (width, asphalt, lightening) in the perimeter axis, in the Airport area, and in few segments within Kamza center, but remains poor (just paths) in the rest of the area. Solid waste (being provided by 7 LGs), is not only inefficient, but almost missing in the hinterland. Households discard waste in riverbanks, or burn it in open air. Power supply network is extended through the entire area. Telecommunication services, being private, are in expansion, but the service is not always reliable.

The above situation raises several development challenges to be faced by governments and people in their effort for future prosperity. These challenges are:

- How to slow down growth and accommodate/deal with development pressure (from boundaries towards hinterland), while preserving agricultural land and bringing back nature to the metropolis?
- Infrastructure is crucial, but currently acts as a wall to civil development. Openness and integration is needed for civilization and social development. Barriers should be eliminated to avoid social segregation.
- Positively reversing perceptions on the image of the area and the whole metropolis, is one key to Albania's future development?

6 Local Governments



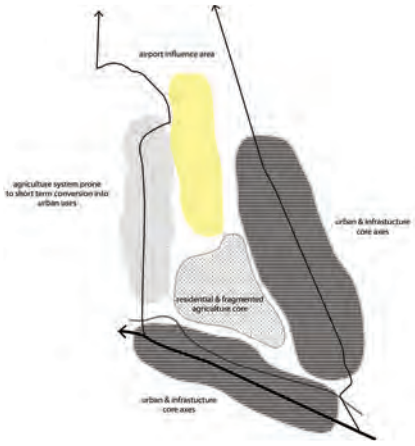


Fig 8. *Development challenges*

The challenges are addressed by adopting, promoting solid densification, consolidation regeneration and minor expansion as a tool for sustainable development; reactivation of economic potential through regional and local services and cluster promotion; use of Kamza corridor and other green corridors as a unifying elements and barrier breakers to integrate settlements, while connecting and combining the fragmented voids to invigorate public space; preservation of agriculture as a core system to the area and as an eco-economic potential for the metropolises.

This vision is detailed in the following master plan: From a land use point of view the area will be surrounded by two national axis (south and west) and one urban-mixed-national heading north, across Kamza. The south axis will keep being the economic strip – metropolitan corridor, while the east one will be reinforced as an urban-mixed corridor. The hinterland urban growth will extend/consolidate in a gradient like pattern, from the southeast entrance (Tirana Multi modal station and high buildings density) towards northwest (agriculture and

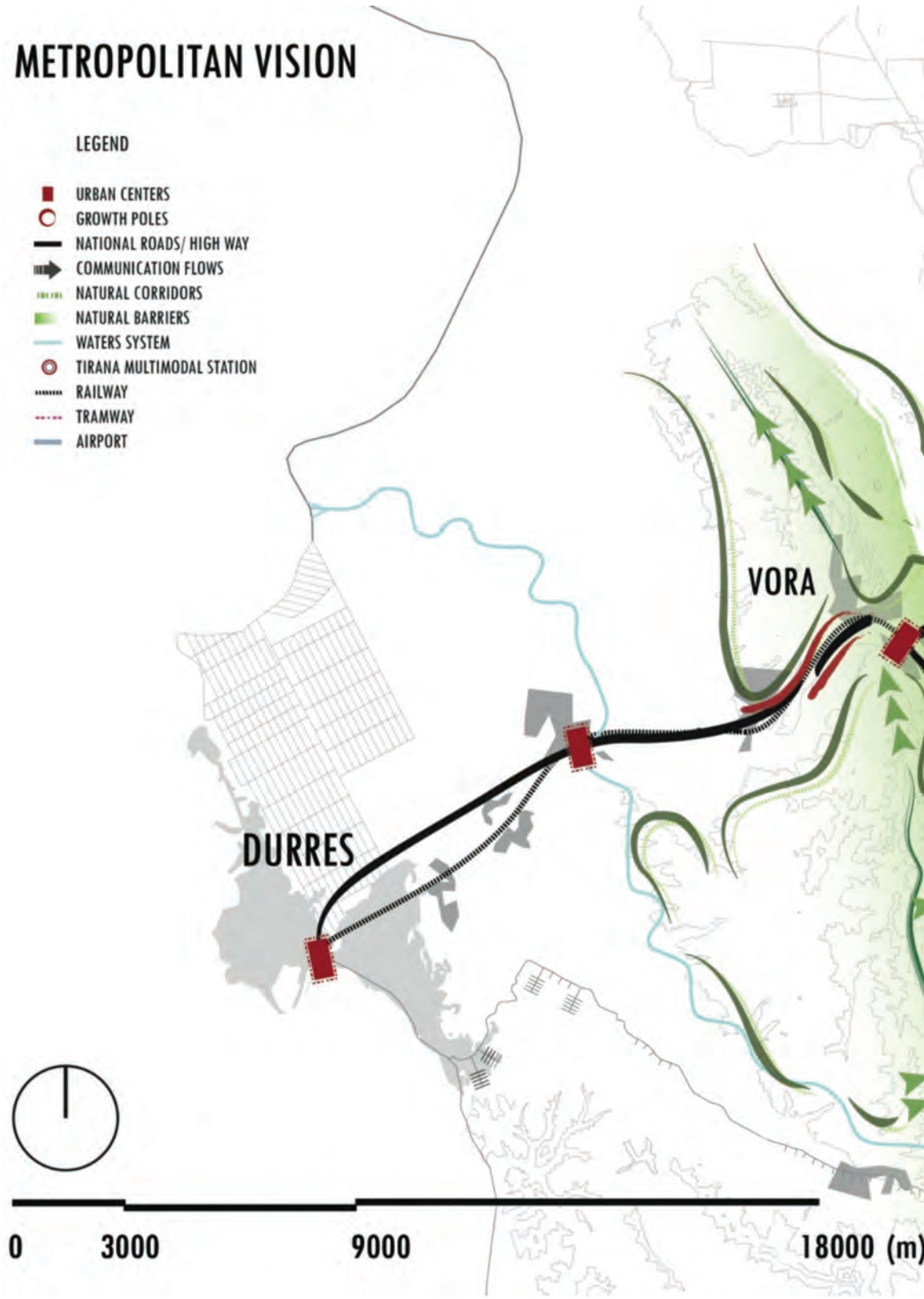
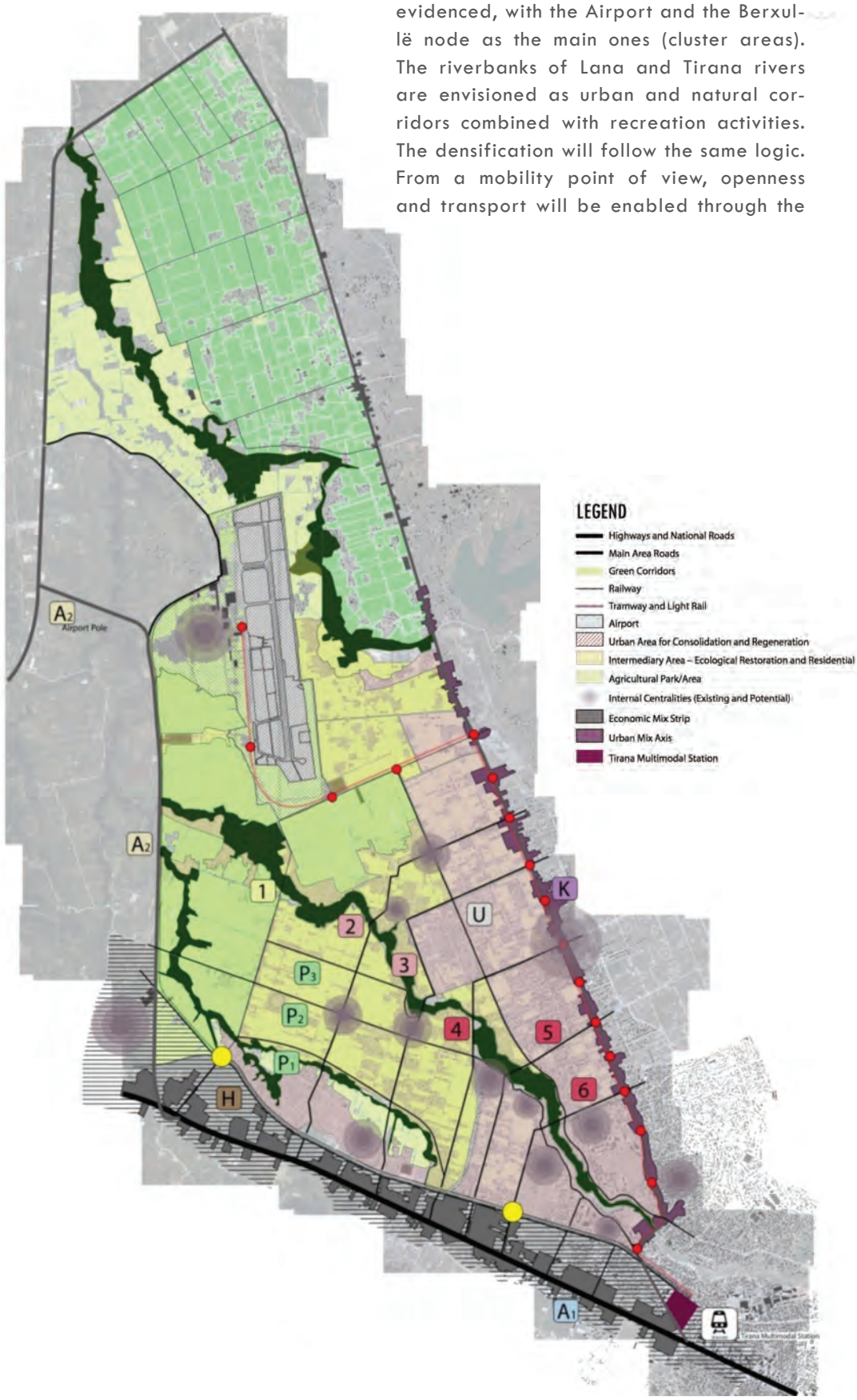


Fig 9. *The Vision*

nature). Three radials are envisaged – the consolidation/regeneration urban area; the intermediary area – ecological restoration and housing; the agriculture eco-park, heading towards the hills. A series of urban centralities (existing and potential) are evidenced, with the Airport and the Berxullë node as the main ones (cluster areas). The riverbanks of Lana and Tirana rivers are envisioned as urban and natural corridors combined with recreation activities. The densification will follow the same logic. From a mobility point of view, openness and transport will be enabled through the

Fig 10. *The Master Plan*



strengthening of the Kamza urban corridor and tram line introduction; the connecting transversal from Kamza urban corridor to the southern economic strip; the panoramic and urban panoramic connections completing the network and providing opportunity for ecological restoration; and the introduction of the light rail parallel to the southern economic strip. Land use wise, the light rail will serve also as a borderline for the mix economic strip with the adjacent residential and agricultural area. This plan will integrate the area internally and open it towards the metropolis and the Airport hub.