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Getting to know the Dropull territory through Data

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Abstract

The plan of Dropull was a two-year project undertaken by Polis university in April of 2017. After the new administrative reform that reorganized the country into 61 municipalities had just taken place, the General Local Territorial Plans (GLTP-s) were the first plans that these newly established territories would have. Dropull municipality was not included in the public offering for the development of these plans, rather they contacted POLIS university to aid them in the process as a new municipality.

The plan faced many challenges, but this paper will only deal with the data gap during the planning process and the mixed methodology created to address this gap. For Dropull municipality the planning process was challenging due to lack of data, cadaster registration problems, shrinking population and property conflicts. The main objective of this process was to have substantial data in order to facilitate the planning and decision making process.

These challenges were to be addressed by using GIS mainly oriented toward online data record and overlay of information in order to bring together both quantitative data and its geographical location. The research was the most substantial part of plan, since they had to deal with a merit of actors and agencies in a coordinated effort to contextualize the planning process for this municipality. The use of GIS was a new challenge, since the municipality had no previous experience with it, and their information was fragmented and mainly cartographic. The main purpose of this paper is to contribute to the knowledge sustainable development approaches and multilevel decision-making, and at the same time enrich the territorial information and enable a development strategy based on the realities and interests of the municipality.

Introduction

The context of planning and the need for GIS. The reform started in 2007 with the preparation of the new legislation on "Territorial Planning". But it wasn't until 2009 with the approval of this law that change was introduced. According to this law, the country reorganized its territorial division from 373 municipalities and communes to 61 municipalities with urban and rural territories. (Ministria e Ceshtjeve Vendore, 2015) The reform was supported by the drafting of the first document of the General National Territorial Plan in the late 2013 by the Ministry of Urban Development. This document represented the first spatial plan of Albania, defining common objectives, highlighting the

strengths and potentials of the entire country, under the spatial development umbrella. (A. Qorri, 2017)

The country had clearly stepped forward to enchanted waters, were the newly formed governments units were unclear how to manage or even plan for these new, much larger territories. On top of the absence of the capacities in planning at the local level, the absence of data was one of the main and greatest challenges.

Taking into consideration the directives established by the Albania 2030 Spatial plan, Dropull is characterized as a development hub and part of the Tepelenë- Gjirokastër- Sarandë region,

and it is categorized as a center of tertiary importance. Focused on the eco-tourism development, agriculture and manufacturing process Dropull is an important strategic gate between Albania and Greece. (AKPT, 2015)

The entire Dropull territory was a new challenge for the newly appointed mayor, particularly in terms of data management. After the Territorial reform and the changes into the territorial division supported by legislation, the planning process needed a new approach into planning. Incorporating GIS was not easy for a territory that lacked data. The context required a custom made methodology into dealing with the new territory, but also the specific needs of the people living in this territory.

The Municipality

Located in the south-eastern part of the country, in the region of Gjirokastra, Dropull is the last municipality before entering Greece. The isolation during the communist era led to the close cooperation and exchange with Greece. After the territorial division Dropull was composed by the merging of three former administrative units: the Lower Dropull, the Upper Dropull and Pogon. Taken together these administrative units shared 41 settlements of urban and rural typologies. Placed between two important economic and cultural centers - Gjirokastra and Janina - Dropull finds itself in a strategic location for economic development.

The main infrastructure plays an important role in the development of

Dropull municipality since it connects all the settlements from the Lower Dropull to the Upper Dropull with the Kakavija border crossing. This connection is vital for the municipality since it contributes to the economic development of the municipality. Along this infrastructure there are some of the country's larger manufacturing industries, providing an important connection with the port of Igoumenitsa. The municipalities inner infrastructure are fragmented and in poor conditions.

Among the 41 settlements that can be reached by the main infrastructure, only 5 settlements have road connections that don't require access to the main road. Pogon, which is also the highest part of the municipality, is the only unit connected with infrastructure from the Lower Dropull, through a single dirt road that crosses into two different municipalities.

The potentials and assets of the municipality

More than 70% of Dropull municipality is composed of natural and cultural areas - a protected flora and fauna area and more than 45 monuments. These assets represent an untapped potential for Dropull municipality that the spatial plan has identified in terms of the territorial roles of its centers (Dropull Municipality & Polis University, 2018)

Agriculture also represents an important economic asset for the municipality, but due to migration and poor economic conditions, many farmers have abandoned the agricultural production. According to

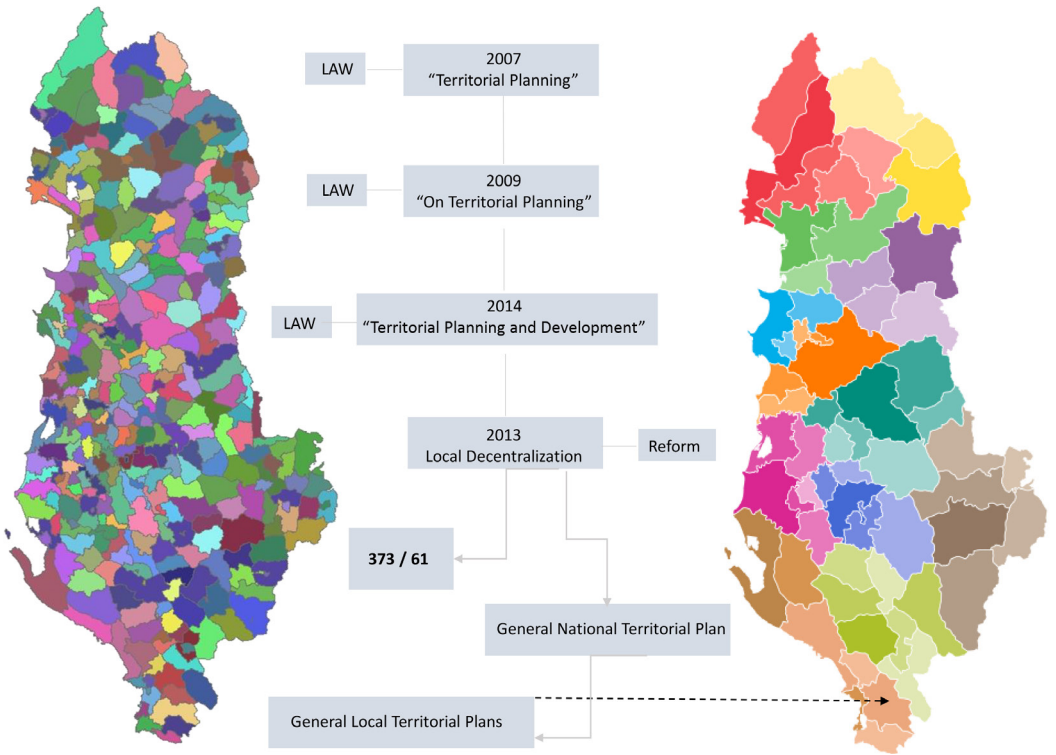


Fig. 1 / A schematization of the timeline evolution of the legislation supporting to the new administrative division of Albania. Source / Created by the Author

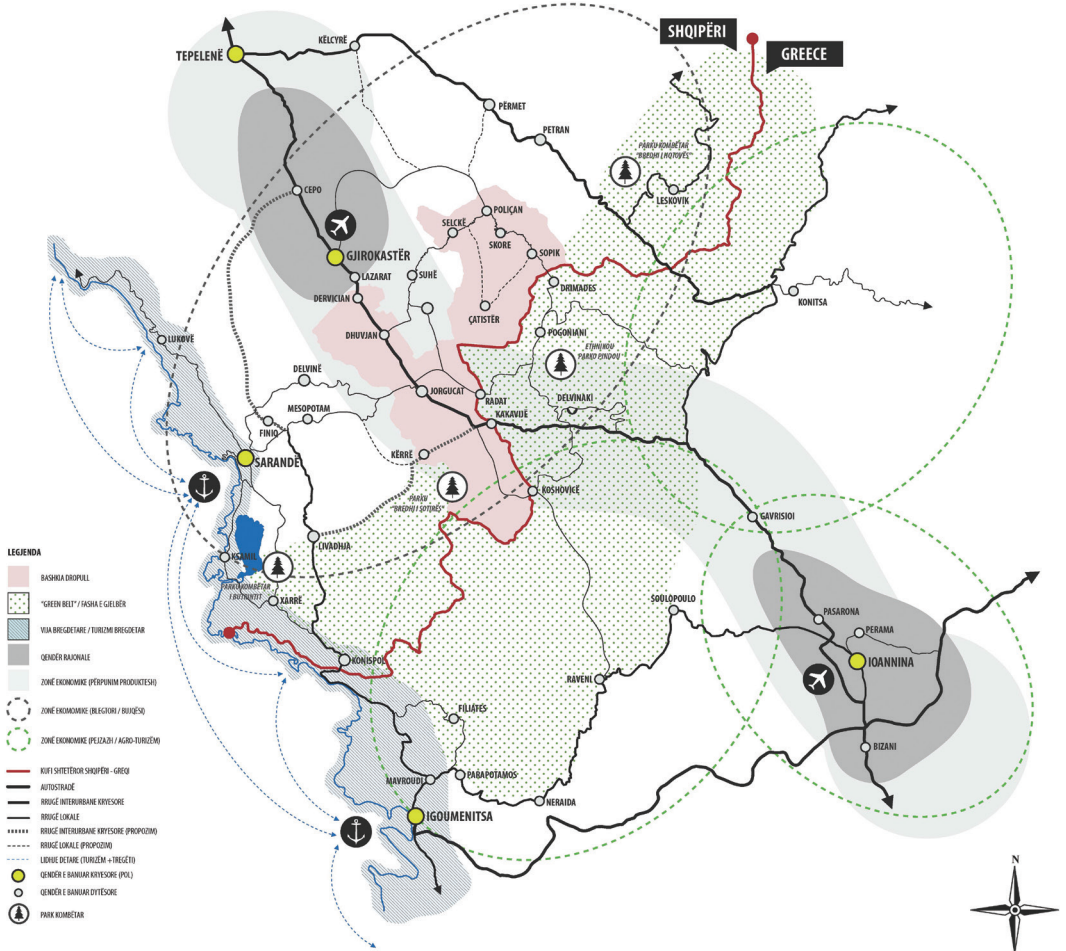


Fig. 2 / The regional position of Dropull municipality and its development gravitational poles/Regional map of Dropull documents of Analyses. Source / Created by Eranda Janku part of planning team.

the survey conducted by Polis university, the farmers have no access to the regional market and no possibility to finance their own production. However, Dropull

municipality is also home to some of the country's biggest manufacturing business. Food production businesses are investing in agriculture and giving new possibilities

to the inhabitants of this municipality. 170 private companies currently operate in Dropull municipality. Five of them are the biggest in the country, and they represent the majority of trade development in the region. Most of the production is destined for a European market, so the strategic position and proximity to the Igoumenitsa port favor the development of business in this municipality.

The population of Dropull municipality was a rather complicated matter for both the municipality and Polis in the process of drafting this plan. The census of 1990 estimated a population of 20 thousand people living in its territory. Immediately after the 90's the country underwent a wave of mass migrations, which considerably influenced all the cities of Albania. This shrunked the previous number to almost 60% of the 1990 estimations. Due to the historic partnership with the bordering Greek region and to limited Employment opportunities, services and facilities that the municipality could offer, a considerable number of people worked seasonally or daily in Greece. The census however, did not consider these particularities, even though most of the seasonal workers payed their taxes, renovated their houses and voted in the municipality. Such situation and certain methodological problems decreased the credibility of the 2011 CENSUS¹.

This was one of the main problematics that the plan had to address, right from the start. In light of this information and after the micro census was conducted, in 2016 the population of Dropull municipality was estimated to have a population of 7.200 people; 48% to 51% were women. (Dropull Municipality & Polis University, 2018)

The Plan of Dropull

The legislative bases defined the content of the General Local Territorial Plan (GLTP) and established clear steps in the planning process. However, the methodology evaluated all the territories by the same criteria, which was a significant problem for a small municipality such as Dropull. The consultations conducted with the National Territorial Planning Agency, which was in charge of guiding the planning process in all the municipalities, allowed for the plan to evaluate the context based on the step the Decision of Council of Ministers defined, but also incorporate more material to better comprehend the municipality of Dropull. This required

a custom made approach for this municipality. The biggest challenge faced by the team, was the lack of data. The only source of information and classification was organized by the former territorial division, and most of the information had no digital representation whatsoever. The process of digitalization started from zero, because using the previous information was highly inaccurate (Dropull Municipality & Polis University, 2018)

The team had to cooperate with 15 ministries to collect data and create a digital database. The main obstacle of this process was the incoherent data provided by different Ministries and agencies in comparison to the data from the municipality and the current development situation. The ministries provided data and cartographical information that was not updated or overlaid in the territory since 2007. This was the information used in the last official Orthophoto. (Dropull Municipality & Polis University, 2018) The digitalization process was a mixed methodology approach, which was requested by the inhabitants. But the lack of experience of the municipality and its staff obliged the team to conduct a series of trainings before the process officially begun, which made the process slow and quite inefficient. The team engaged more than 150 volunteering students to collect and update data. During this process the team collected more than 50 Shapefile's, 100 cartographic maps and more than 200 documents referenced to the resources, development or interventions of the municipality. This material was overlaid and cross-referenced within the database by a process of elimination, first eliminating the duplicated information, then organizing a meeting with all the contributing actors from the ministries and reconfirming the final information.

Regarding the population data, Polis university drafted an inclusive methodology by applying a participatory micro census that reconfirmed population data and living standards, collecting information from 41 localities and more than 6700 houses. This micro census was organized separately for the population and separately for the industrial and economic areas. The process of data collection was separated into 18 site visits, where the material was overlaid with the cartographic information provided by the

¹ / Claiming that the distinctive character of the municipality had a population that worked in Greece and returned during the spring and summer making them provisory tenants in this municipality and, therefore needed to be accounted for.

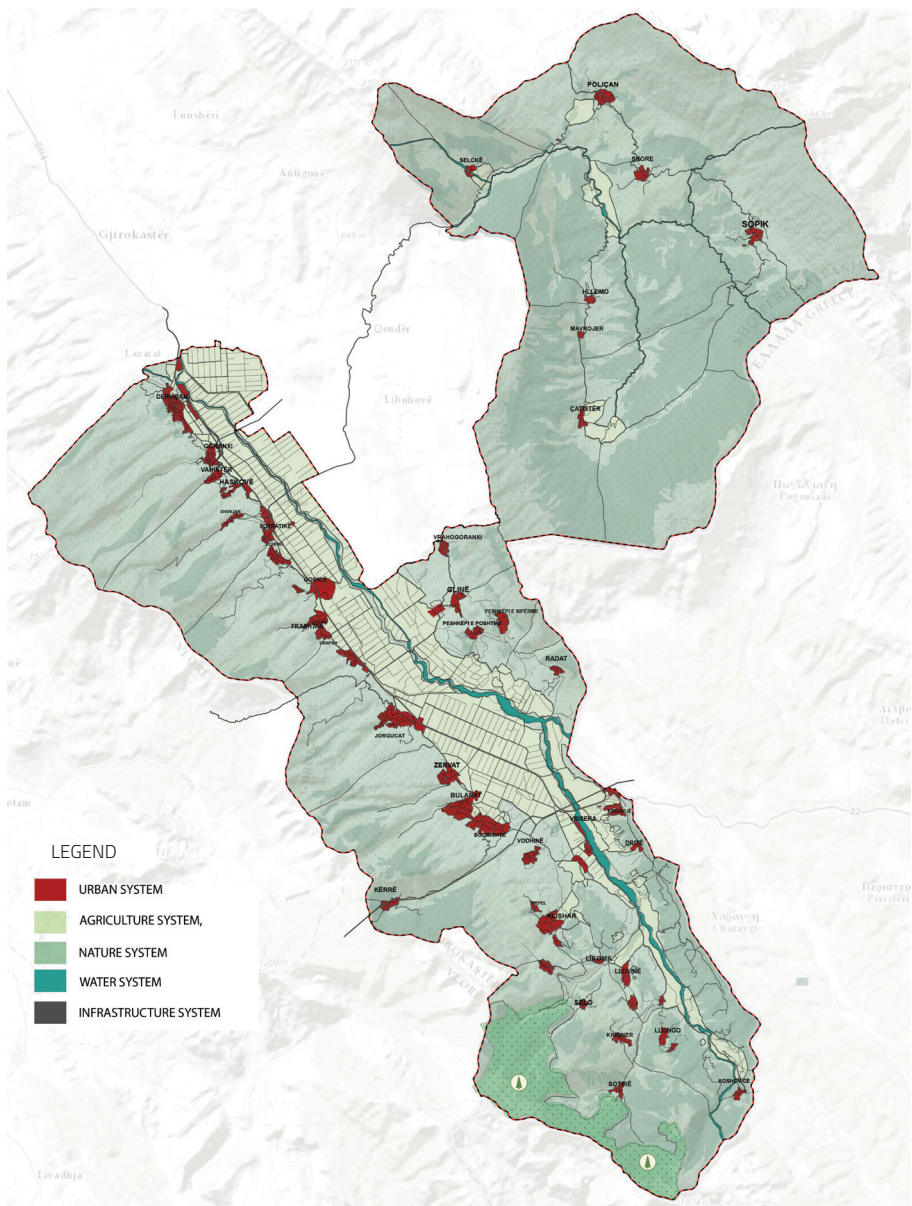


Fig. 3 / Dropull municipality division by territorial systems/ Dropull plan Strategy document / Source / the Author, May 2018

ministry. However, in order to ensure accuracy, the data collection was done by rotation teams at three different times, and by taking into account temporary inhabitants as well. The data was then divided into a group formula that was later consulted and approved by INSTAT².

As required by law, but also as a transparency measure, the team organized 3 rounds of open presentation meetings with local representatives, actors and inhabitants in order to present the findings, objectives and vision based on these findings. From the second phase of this methodology, the working group in collaboration with the municipality, recreated a new database where the population data as collected by the mini census was used to evaluate the future prediction of the population. (Dropull

Municipality & Polis University, 2018).

The fragmented Dropull

The planning process worked hand in hand with the local authorities, actors, ministries and the National Territorial Planning Agency in order to build a plan that reflected the context of Dropull and every asset that could be used to bust economic development, preserve nature and build a sustainable and social community environment for its inhabitants. The territorial challenge, represented by the administrative division, merged together the upper and lower Dropull administrative units together. From a topographic point of view, this made perfect sense, since the upper and lower Dropull communicated long before the formal division. However, Pogon was completely isolated, surrounded by mountains and connected

² / National Institute of statistics

with a single infrastructural road crossing mainly into the neighboring municipality of Libohovë. (Dropull Municipality & Polis University, 2018)

The vision addressed each former administrative division as a separate locality with a specific specialization, giving them independence from each other. Highlighting the strengths and the main economic activities of each center, municipality had 4 local centers with a unique specialization, but shared common goals such as tourism, production, services and industry. (Dropull Municipality & Polis University, 2018) This approach allowed the municipality to address priorities and goals and also bring together the territory as a single organism. The "umbrella" of production, service, culture and tourism united the territory in terms of the guidelines of the future development and at the same time, embraced the specialization of each center creating a ripple effect not only for the settlements of these units but also the region. These allowed for the development to concentrate into existing potentials and inner growth for this municipality.

Conclusions

The process of planning is an intense and complicated process, that needs the possibility to adapt to the context taken into consideration. As the process faced continues challenges the creation of a mixed method in the planning process was relevant for the plan to be realistically drafted and acknowledge by the institutions, people and reflected the current situation.

Though this paper only explored the GIS system and the methodology used in the case of Dropull, the simplification was a means to better transmit the experience and argument this particular course of action.

The challenged that the team faced due to lack of data slowed the process considerably, as information was collected separately from each source and then compared and analyze by process of overlaying and elimination, keeping in mind the margin of error that this methodology holds. The micro census was perhaps the most challenging endeavor, as this methodology was never tried before and the support of the institutions was dubious at first, this required additional consultations with many groups and a clear motivation to push the process forward.

Bibliography

A. Qorri, E. F., 2017. Toward territorial cohesion with the National Spatial Plan for Albania 2030. Lisbon, AESOP.

AKPT, 2015. The General National Plan (GNP) "Shqipëria 2030", Tirana: Ministry of Urban Development.

Allkja, L., 2017. Cross Border Cooperation in Western Balkans- A Comparative Analysis of Cross Border Experiences Between Albania-Kosovo And Albania-Greece. Lisbon, AESOP.

Allkja, L. b., 2017. Europeanization of Spatial Planning in Albania. Torino, s.n.

By, R. A., 2001. The principles of Geographic Informational systems. Munich: The International Institute for Aerospace Survey and Earth Sciences.

Dropull Municipality & Polis University, 2018. Local General Plan of Dropull Municipality, Dropull: AKPT.

ESRI, 1992. Understanding GIS: The Arc/Info Method. ENVIRONMENTAL SYSTEMS RESEARCH INSTITUTE, INC., pp. 102-108.

Ministri i Cështjeve Vendore, 2015. Strategjia Ndersektoriale per Decentralizimin dhe Qeverisjen Vendore, Tirane: Keshilli Ministrave.

Toto, R., 2012. Analize e situates se planifikimit te territorit ne Shqiperi.. In: Politikberes dhe Politikndjekes. Tirane: Afrojdit, pp. 1-40.

United Nations, 2000. Handbook on geographic information systems and digital mapping, New York: Department of Economic and Social Affairs, UN.

Webliography

AKPT, 2018. Planet e Pergjithshme Vendore. [Online] Available at: <http://planifikimi.gov.al/?q=sq/content/planet-e-p%C3%ABrgjithshme-vendore>

UNESCO, 1945. World Heritage List UNESCO. [Online] Available at: <https://whc.unesco.org/en/list/569> [Accessed 28 07 2018].

