Assessment of the Geospatial Infrastructure of the Surveying Agency Ministry of Agriculture (SAMA) through in situ GNSS measurements and cadastral data with use of GIS techniques

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SUMMARY

At the end of the First World War, Greece had more than doubled its territory, having under its rule a part of Asia Minor, Ionia, with its capital Smyrna. The Asia Minor Campaign of 1919-1922, which led to the Asia Minor Disaster, resulted in Greece losing the territories of Asia Minor and Eastern Thrace, while more than 1.5 to 2 million Greek refugees flooded Greece under the 1923 Lausanne Agreement for the exchange of populations and territories between Greece and Turkey.

The rehabilitation of the refugees was one of the basic and main tasks of the Survey Agency of the Ministry of Agriculture - SAMA, which was established in 1917. The rehabilitation of the refugees was carried out through the official distribution of agricultural and residential land through official acts carried out by SAMA. At the same time, agricultural and residential plots were allocated to local Greeks, both to prevent conflicts between local Greeks and Greek refugees and to limit the over-concentration of land in the hands of a small number of landowners. In total, over 5000 farms and over 1500 settlements were distributed throughout the country.

The SAMA distributions were the first large-scale and accurate geodetic, surveying and cadastral works carried out by the Government Agency, covering the whole country and leading to the granting of official titles guaranteed by the State, which are still official institutional lines today. These works were based on the old Greek datum, through the creation of geodetic networks that covered practically every farm or small group of farms and settlements.

Since the inclusion of the distributions in the National Cadastre, the official cadastral system of Greece, is mandatory, their inclusion so far raises serious issues of accuracy and implementation, leading to multiple problems, from the payment of subsidies to the completion of transfers or

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investments.

This paper presents the evaluation of geo-cadastral data of TYYG distributions in Northern Greece, through field GNSS measurements and transformations, and their comparison with current cadastral data of the National Cadastre to identify differences, using GIS infrastructures. The aim is to identify problem areas and to solve problems of the cadastral data of the National Cadastre in order to solve the problems of accuracy of the data of the distributions during their integration into the National Cadastral System.