Correcting Cadastral Maps Errors in Armenia Using Geospatial Technology

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SUMMARY

In 2021, Armenia implemented a legislative framework to address and correct errors in the country's cadastral maps, a critical component for managing land ownership and property rights. The new legal framework established the use of orthophotos, with an up to 30 cm spatial resolution, as a primary tool for identifying and correcting locational, geometric, and dimensional errors in cadastral data. This methodology represents a major advancement in land management, as it integrates modern geospatial technology with the country's state registration system, ensuring more precise and reliable cadastral maps.

The methodology outlines the steps for identifying and correcting errors such as incorrect locations, geometric forms, linear dimensions, and ownership inconsistencies. Notably, the methodology also includes a specific approach for adjusting agricultural plots, reflecting the unique challenges posed by this category of land use.

As of 2024, over 485 settlement cadastral maps, representing approximately 47 % of the total, have already been corrected as part of this ongoing initiative.

The work continues, with further updates expected to improve land data accuracy across the country. This process not only enhances the reliability of cadastral spatial data layers but also provides a transparent and legally sound framework for managing property rights.

This reform in Armenia's cadastral mapping system is a significant leap forward in land administration. By incorporating orthophotos into cadastral map correction processes, Armenia sets a regional benchmark for using modern technology to ensure accurate land records.

This approach enhances property rights management, supports urban and rural planning, and serves as a model for other nations looking to modernize their land administration systems.