

Research on the Cultivation Transformation and Career Development of Surveying and Mapping Talents from the Perspective of Unified Registration for Confirmation of Rights over Natural Resources and Real Estate

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Key words: Education; Professional practice; Standards; Young surveyor; Unified Registration for Confirmation of Rights; Surveying and Mapping; Talent Cultivation; Career Development; Natural Resource Management

SUMMARY

Abstract: The Ministry of Natural Resources of China has been guided to comprehensively pushing forward the reform of the national natural resource asset management system. The unified registration for the confirmation of rights over natural resources and real estate, as a fundamental institutional reform at the national level, has profoundly reshaped the technological demands and value orientation of the surveying and mapping industry. In 2022, driven by the relevant departments and bureaus of the Ministry of Natural Resources as well as the Human Resources Development Center of the Ministry of Natural Resources, professionals in real estate rights confirmation and registration were included as a new occupation in the "Classification and Codes of Occupations in the People's Republic of China (2022 Edition)", attaching a systematic impact on talent cultivation and career development in related fields, especially in surveying and mapping area. Based on the reality of natural resource management and the industry, this paper explores the specific manifestations and internal mechanisms of the impact of this institutional reform. The study finds that this institutional reform will effectively drive the transformation and upgrading of talent cultivation standards in the surveying and mapping industry, requiring practitioners to possess a composite knowledge structure including surveying and mapping, law, management, and information technology. Their core skills will shift from spatial data collection to property rights registration and data governance. At the occupational level, this reform will effectively broaden the career paths for surveying and mapping talents, giving rise to emerging occupations such as real estate data engineers, cadastral surveyors, and natural resource survey and monitoring specialists, significantly enhancing the value and status of surveying and mapping work in resource management and property rights protection. In the article, reflections and suggestions are given regarding to standardization construction, talent cultivation and discipline construction, career development, and professional education and training, and providing an outlook on future career development prospects and offering references and practical guidance for surveying and mapping education reform and career planning for practitioners.

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