عنوان مقاله:

Institutional Mapping of Nano-Technological Innovation System in the Agricultural Sector of Iran

محل انتشار:

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خلاصه مقاله:

Nature and rate of technological change is defined inside technological innovation system, a concept developed out of Innovation System Approach. The main purpose of this study was to institutionally map nanotechnological innovation system of Iranian agriculture by investigating current state of hard and soft institutions regarding functions of the system. This study consisted of qualitative and quantitative phases. In the qualitative part, a thematic content analysis was used to compare the current and desired states of high level laws and documents. The quantitative phase was a descriptive survey. In the quantitative phase, the statistical population consisted of active researchers in the field of nanotechnology from agricultural national research institutes and centers, agricultural colleges, and knowledge-based companies. Using Krejcie and Morgan's table and stratified random sampling, ۴۰۵ participants were selected. After ranking functions of the system based on their importance, current and desired functional state of hard institutions were compared through paired t-test. In the qualitative phase, current state of NanoTechnological Innovation in Agricultural (NTIA) system was investigated in terms of functions of soft institutions, i.e. ۲۳ high level documents and laws related to nanotechnology, using ATLAS.ti software. Results showed that the functional gap between soft and hard institutions of the innovation system was very deep. This trend indicated that the capacities of various operators of NTIA system were not fully used to advance nanotechnology applications in agriculture.

کلمات کلیدی:

ATLAS.ti software, Functional gap, Hard institutions, Soft institutions,.
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