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## Social Network Analysis, Social Power in Water Co-Management (Case Study: Iran, Shemiranat, Jirood Village)

Authors: Fariba Ebrahimi, Mehdi Ghorbani, Ali Salajegheh

**Abstract :** Comprehensively water management considers economic, environmental, technical and social and also sustainability of water resources for future generations. Grassland management implies cooperative approach and involves all stakeholders and also introduces issues to managers, decision and policy makers. Solving these issues needs integrated and system approach. According to the recognition of actors or key persons in necessary to apply cooperative management of Water. Therefore, based on stakeholder analysis and social network analysis can be used to demonstrate the most effective actors for environmental decisions. In this research, social powers according are specified to social network approach at Water utilizers' level of Natural in Jirood catchment of Latian basin. In this paper, utilizers of water resources were recognized using field trips and then, trust and collaboration matrix produced using questionnaires. In the next step, degree centrality index were Examined. Finally, geometric position of each actor was illustrated in the network. The results of the research based on centrality index have a key role in recognition of cooperative management of Water in Jirood and also will help managers and planners of water in the case of recognition of social powers in order to organization and implementation of sustainable management of Water.

**Keywords:** social network analysis, water co-management, social power, centrality index, local stakeholders network, Jirood catchment

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