A study on sustainability of relationship between local water resources and communities through analysis of common artesian wells

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Abstract

In the "Meisui-Hyakusen" and "Mizu-no-Sato-Hyakusen" in Japanese, or "Selected 100 Exquisite and Well-Conserved Waters" and "Selected 100 Villages of Water", which has re-evaluated water resources as the local resources at the same time, the relationship between the residents there and the local resources have been considered important in addition to its quality of the water, and the urban planners have made full use of these selected water resources for the planning. However, since more than 30 years have passed since "Selected 100 Exquisite and Well-Conserved Waters" was selected, the relationship is likely to have changed because of these resources becoming tourist's attraction and the decrease of the usage of these resources due to the progress of declining birthrate and aging society or the change in lifestyle. In the site of this research, Ikuji district, Kurobe City, Toyama Prefecture, Japan, there are lots of "Shozu", or artesian wells, and we focused on eight of them, which have been selected as "Selected 100 Exquisite and Well-Conserved Waters." These eight artesian wells there are used commonly by the residents there and now also by tourists. We analyzed the changes and the reason of them of the relationship between eight these wells and the residents there, focusing on the spatial improvement project, effect of becoming tourist's attraction, and the local activity. As the result, we found out the decrease of the usage of these wells by the residents in daily life, the sustainable relationship between the wells and the residents there through the operation and the maintenance of the wells, and the difference in the number of the residents participating in the operation and the maintenance depends on the form of it. In addition, it is suggested that local activities affect the sustainability of operation and maintenance, while spatial improvement and the change to the touristy place do not affect that much.