

論文内容の要旨

Sustainability has become a key issue in managing natural resources together with growing concerns for capitalism, environmental and resource problems. A marketable permits system (MPS) has been deemed effective in laboratory experiments, however, little is known about how the MPS works in the field. We evaluate the MPS efficiency for forest conservation by framed field experiments in Nepal. Forestland demands are elicited from farmers, with which the experiments are carried out. The novelty lies in instituting a uniform price auction (UPA) under trader settings and in identifying the MPS efficiency for forest conservation in the field of developing nations. The results suggest that farmers with limited education understand UPA rules, reveal their forestland valuations and that the MPS is effective with 80% of efficiency. Market is better when no waste is created, however, current ongoing modernization of competitive societies, which we refer to as “capitalism,” affects human nature for utilizing natural resources that are provided in commons, thus compromising sustainability. To test this hypothesis, we design and implement a set of dynamic common pool resource games and experiments in the following two types of Nepalese areas: (i) rural (non-capitalistic) and (ii) urban (capitalistic) areas. We find that a proportion of prosocial individuals in urban areas is lower than that in rural areas, and urban residents deplete resources more quickly than rural residents. The composition of proself and prosocial individuals in a group and the degree of capitalism are crucial in that an increase in prosocial members in a group and the rural dummy positively affect resource sustainability by 65% and 63%, respectively. Overall, this paper shows that for some class of social problems market yields better performance, while in the other hand when societies move toward more capitalistic environments, the sustainability of common pool resources tends to decrease with the changes in individual preferences, social norms, customs and views to others through human interactions. This result implies that individuals may be losing their coordination abilities, while facing social dilemmas, therefore social design is necessary to ensure sustainability of human society. Key Words: common pool resources, marketable permits system, field experiments, forest management, social dilemma, sustainability