COMPLETION REPORT

Managing the Underuse of Satoyama as the New Commons for the Harmonious Coexistence of Humans and Nature in Japan

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Scholars have argued that overuse of the commons results in the tragedy of the commons (degradation of shared natural resources) and mainstream literature on the commons has accordingly evolved along this line of thought. Drawing on case evidence from the private terraced paddy fields (TPFs) located in Niigata Prefecture, Japan, which can be considered commons from a certain perspective, this study seeks to determine whether underuse of the commons also causes the tragedy. Privately owned TPFs generate cultural ecosystem services, such as scenic views and environmental, recreational, spiritual, and educational value that significantly benefit many neighboring individuals, including urbanites with no property rights to TPFs. From this ecosystem services perspective, TPFs are commons to these beneficiaries. As part of research, I conducted field surveys in TPF areas located in Tokamachi City and Joetsu City, Niigata Prefecture, Japan in May 2013 and August 2014. I interviewed owners of TPFs, officials at city and prefectural offices, and executives of two TPF owner system programs.

The research shows that when the inactivity of private property rights holders substantially reduces the level of the cultural ecosystem services, these beneficiaries endeavor to manage TPFs as commons to generate the services. Here, first- and second-order underuse occurs. First-order underuse results from the inactivity of landholders, while second-order underuse results from beneficiaries' property rights and unfamiliarity with farming activities. Management of the commons primarily transfers from landholders to urbanites or facilitators and the tragedy is likely to occur during this transition period. The new term *transcommons* is used to describe such commons in transition. The tragedy occurs due to underuse by many new beneficiaries who have limited to no access to the resources. This study suggests that the polycentric form of governance, which was developed for managing the overuse of the commons, be employed to cope with the tragedy of transcommons that occurs due to underuse. The polycentric form of governance that consists of multiple, overlapping centers of federal, regional, and local governments and community authorities, and was, however, developed to address overuse, could be a very useful approach to dealing with underuse of TPF commons located in satoyama. In this regard, insights and principles from the polycentric governance have the potential to enhance the functioning and effectiveness of the International Partnership for the Satoyama Initiative (IPSI). IPSI, which was developed in 2010 to foster a harmonious relationship between human society and nature's ecology in local satoyama areas, attempts to involve all level of authorities.

Publication of the Results of Research Project:

Verbal Presentation (Date, Venue, Name of Conference, Title of Presentation, Presenter, etc.)

Sarker, A. 2013. Managing the Underuse of the Satoyama as a New Commons for the Harmonious Coexistence of Humans and Nature in Japan. IASC 2013: *The 14th Global Biennial Conference of the International Association for the Study of the Commons* held during 3-7 June 2013 at Mt. Fuji in Japan.

Sarker, A. 2014. Tanada as commons in Niigata Prefecture. Presented as part of an invited lecture at the Department of Economics, Chuo University, Japan. August 1, 2014.

Sarker, A. 2015. Managing Private Terraced Paddy Fields as Transcommons in Japan. Abstract submitted to 15th Biannual International Conference of the International Association for the Study of the Commons

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Thesis (Name of Journal and its Date, Title and Author of Thesis, etc.)

Sarker, A. 2014. Tragedy of Private Terraced Paddy Fields as Transcommons in Japan. (In preparation for the *Journal of the Commons*.

Book (Publisher and Date of the Book, Title and Author of the Book, etc.)

Sarker, A. 2014. Coping with the Tragedy of Terraced Paddy Fields as Transcommons in Satoyama in Japan.

I submitted this article as a book chapter to book editor Professor Margaret McKean, Duke University, U.S.A.