

Sustainability, Collapse and the Role of Management Appeared in the Satoyama's History of Natural Resource use

OSUMI Katsuhiko

Kansai Research Center, Forestry and Forest Products Research Institute, Kyoto, Japan

OSUMI Katsuhiko is a senior researcher at Kansai Research Center, Forestry and Forest Products Research Institute. He received his Dr. of agriculture from Kyoto University (2001). He was a technical official at the Forestry Agency (1979-1984), a researcher at Tohoku Research Center, Forestry and Forest Products Research Institute (1984-1991), a senior researcher at Japan International Research Center for Agricultural Sciences (1991-1993), a team leader at Tohoku Research Center, Forestry and Forest Products Research Institute (1993-1997), a team leader and a research coordinator at Kansai Research Center (1998-2008). His major field of interests is silviculture and ecology of broadleaf trees. His major publications include: "Vegetation patterns and their dependency to site conditions in the pre-industrial landscape of north-eastern Japan" (*Ecological Research* 18)(2003); "Reciprocal distribution of two congeneric trees, *Betula platyphylla* var. *japonica* and *Betula maximowicziana*, in a landscape dominated by anthropogenic disturbances in northeastern Japan (*Journal of Biogeography* 32) (2005), *Silvics of Japan* (Co-edited, Japan Forestry Investigation Committee) (2009). osumi@ffpri.affrc.go.jp

Abstract

How did nature resource use sustained or collapsed in the history? Did the knowledge and technology of land managers play a good role? I reviewed researches about sustainability on the resource uses in the history in the Satoyama landscapes of Kansai area—middle of Japan. We found that sustained resource uses were involved some kind of managements and/or regulation in the most cases. In addition, we suggested that the secondary vegetation, in which natural resources were produced, were possibly not merely degraded ones but a kind of modified ones for obtaining the sustainable provisioning service in these sustainable cases. This habituation must be required some knowledge and technology. Here we introduce typical examples of Satoyama woodland.

Keywords: knowledge; technology; traditional; Satoyama; agrarian landscape; Japan; meta analysis