



A framework for the conservation of rural ecological landscapes in the urban fringe area in Japan


Makoto Yokohari  ^a, Robert D. Brown ^b, Kazuhiko Takeuchi ^c

^a National Institute of Agro-Environmental Sciences, 3-1-1 Kannondai, Tsukuba-shi, Ibaraki-ken 305, Japan

^b School of Landscape Architecture, University of Guelph, Guelph, Ontario, Canada N1G 2W1

^c Laboratory of Landscape Architecture and Science, Faculty of Agriculture, University of Tokyo 1-1-1, Yayoi, Bunkyo-ku, Tokyo, 113, Japan

[http://dx.doi.org/10.1016/0169-2046\(94\)90021-3](http://dx.doi.org/10.1016/0169-2046(94)90021-3), How to Cite or Link Using DOI

 Permissions & Requests

[View full text](#)

Abstract

This study developed the conservation of rural ecological landscapes framework (CRELF), which identifies, classifies, and evaluates ecological functions of rural landscapes for the conservation of rural ecological resources. The framework was illustrated through a two-level study in Japan.

Landscape units of farmland and woodland were evaluated for their ecological functions: 26 functions were identified from the literature. A survey of public officials across Japan led to the identification of eight categories of 'integrated functions' representing the original 26 functions.

The framework was then applied to rural landscapes in the rural fringe area of Tokyo, Japan. Five rural landscape unit types were identified, ranging from low to high urban impact areas. A survey of local residents identified the perceived significance of the eight integrated functions within each of the rural landscape unit types.

The study concluded that no one rural landscape unit type should be expected to meet all the criteria for conservation of rural ecological landscapes. Areas not yet affected by urbanization were perceived to be of highest value for conservation of physical factors such as air, soil, land, water, and microclimate resources, while areas strongly affected by urbanization were perceived to be of highest value in conservation of social factors such as amenity, and culture and education. With careful planning, each rural landscape unit can be an important component of the integrated whole.

Keywords

Landscape conservation; Rural; Urban fringe