

Appendix 1. Summary of questionnaire given to individual participants of community groups in *satoyama* woodland management.

PROCEDURE

The questionnaire consisted of five A4 printed pages. Researchers visited each individual group activity and asked each participant to fill out distributed questionnaires at the same time. Researchers asked the leaders of visited groups for their cooperation before the questionnaire session to ensure as many respondents as possible. Researchers explained the objectives of the questionnaire to respondents and gave instruction on how to mark their answers. Respondents were able to ask questions before and during providing answers if they were uncertain about any point in the questionnaire. Researchers replied to those questions as much as possible without disturbing the respondents' answering process. Researchers quickly checked incorrect marks when they received returned questionnaires but did not ask the respondents to correct them.

QUESTIONS

Questions were divided into four categories: knowledge about *satoyama* woodlands, experience in management activities, group participation personal history, and personal details. Each category contained several key questions as explained below.

Knowledge about *satoyama* woodlands

Respondents were asked "Do you know the following characteristics of *satoyama* woodland?" and answered "Yes, I know" or "No, I don't know" for the following eight points. Knowledge acquiring processes included reading a book, learning from others, and other formats. The eight characteristics were closely related to woodland management were selected based on the earlier literature on *satoyama* woodland management (e.g., Kameyama 1996, Takeuchi 2001). The list included both historical (e.g., Producing fuel and charcoal) and contemporary (e.g., Being used as educational spaces for nature and culture) characteristics. "Producing fuel and charcoal" and "Producing compost from collected fallen leaves" were core aspects of past coppice management in *satoyama* woodland (Takeuchi 2001) but may not be clearly recognized by urban residents. "Collecting edible mushrooms and plants" and "Planting and growing mushrooms on logged trees" were also important historically (Cetinkaya 2009) but urban residents usually do not depend on *satoyama* woodland for their food source. "Timber use of logged trees" was actually a minor part of historical management because the major

function of *satoyama* woodland was to produce fuel and charcoals. “Creating habitats for animals and plants,” “Providing public recreational spaces,” and “Being used as educational spaces for nature and culture” are recognized more recently by urban residents as a value of *satoyama* woodland.

Experience in management activities

Respondents answered “Do you have experience in the following characteristics of *satoyama* woodland?” with “Yes, I have experience” or “No, I don’t have experience” for the following 15 points. Experiences could have been at any time in their life and may have happened in the groups they had joined previously. The question list included both relatively easy (e.g., Cutting undergrowth with hand sickles) and difficult (e.g., Cutting trees with machines) skills to learn. This section was divided into three subcategories, “Physical activities in woodland management,” “Tree/grass selection process before management activities,” and “The use of woody products.” “Physical activities in woodland management” included “Cutting undergrowth with hand sickles,” “Cutting undergrowth with machines (e.g., brush cutter),” “Removing exotic species,” “Cutting trees with hand saws,” “Cutting trees with machines (e.g., chain saws),” “Pruning tree branches,” “Managing shoots from the trunks of coppiced trees,” and “Planting new trees and establishing seedlings.” “Tree/grass selection process before management activities” was sometimes conducted before “Physical activities in woodland management” to select species or individual plants to be removed. Field observation showed that this process was often led by experts in groups in cooperation with other members. This subcategory included “Selecting grasses not to be cut (i.e., protected),” “Selecting exotic species to be removed,” “Selecting trees not to be cut (i.e., protected),” and “Selecting branches to be retained during pruning and shoot management.” “The use of woody products” included “Making fertilizers from collected fallen leaves,” “Making charcoal from logged trees,” and “Planting and growing mushrooms on logged trees.”

Group participation personal history

This section included questions regarding years participating (“How many years have you participated in the activities of this group?”), participating in activities since group establishment (two categories: Yes or No), participation in other groups (two categories: have or have not), and motivation for joining (five categories: social interaction with other members, interest in the natural environment, interest in agricultural activities, contribution to the local community, and feeling refreshed in both body and mind). The

five classes for motivation questions were defined based on the interview with group leaders and the review of literature (e.g., Kuramoto and Nagai 2002).

Personal details

This section included questions regarding age (three categories: under 50, 60, and 70), sex (two categories: male and female), and experience in professional forestry, agriculture, or landscaping (two categories: have and have not).