Document based reconstruction of environment of forests in the Edo period

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Edo period is sometimes praised as the people had lived sustainably in harmony with nature. However, the people not necessarily lived sustainably. For example, excess usage of natural resources leaded to exhaustion of the resources.

There is a category of historical document called "O-Hayahi-Kakiage-Cho" or register of official forests. The "O-Hayashi" or the official forest is a forest controlled by Tokugawa shogunate or local feudal government, which could not be used by ordinary people. Maintenance of the forest was assigned to local people, "O-Hayashi-Mori" who made the register. The register contains the data such as kind or name, thickness, highlight, and number of woods. While the register itself is boring document for historians, it is a mine of data for dendrologists. The register describes a condition of the forest over a few hundred years ago, which helps dendrologists to reconstruct the environment of the forests. Dr. Yasuhiro Koyama showed that most of the official forest in northern part of Shinano province, or Nagano Prefecture, were sparse woods with Japanese red pine of 20-30 cm diameter. The official forests in the region were not green nor rich. By contrast, "Sendou-O-Hayashi" in the same region corresponds to Sakae village showed totally different environment. The forest had a spread of 13.5 ha. 70% of the woods were Japanese oak and beech. There were over 56 woods with diameter of 2 m. 1615 of woods had circumference over 3 m which corresponds the definition of "giant tree" by Ministry of the Environment. The forest was the one with a grade of Natural monuments today. It is surprising that there was such a rich forest in Japan only 200 years ago. Natural environment of Japan seemed to foster the rich forests. The rich forests have been lost because of deforestation by human. This is a good example to show the importance of human activities on condition of natural environment.

Rapid deforestation at nonofficial forests leads to exhaustion of useful woods. All the useful woods such as Japanese cedar and arborvitae had been cut down around Akiyama district until late 19 century. A historical document reported that only useless woods such as Japanese beech, oak, or chestnut remained. The people of Akiyama district demanded conifers to make wooden products such as bucket. After difficulty to obtain material, people changed their mind to use broadleaf trees and started to make bowl and plow etc. The useless woods turned to main material for production. Although they overcame the difficulty, they continued deforestation as they wrote on a document that the desire of human was limitless.

Incorrect or false descriptions are found from the close examination of the registers. There are same numbers of woods on registers recorded at different time. The person in charge seemed to alter the number for fear of meeting criticism for insufficient management. This example shows that historical records are product of "human." The true value of historical science is to reveal the activity and society of human. The examination of historical documents on the assumption of the human nature or the procedure of information evaluation increase the value of the historical documents as data.

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