

## Grassland landscapes and the associated ecosystem services: the Case of Aso

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This poster presentation analyzes the case of the grasslands in the outer rim of the Aso caldera system in Kyushu. Mt Aso is one of the largest terrestrial calderas, and the majestic crater rim supports a variety of forests, grasslands and agrarian landscapes. The grassland of Aso is one of the largest in Japan, and it is recognized as part of a UNESCO Global Geopark and a Globally Important Agricultural Heritage System (GIAHS). This is also a form of the traditional 'satoyama' landscape of Japan, managed through periodic human induced disturbances in the form of grassland burning.

Satoyama landscapes or the traditional agrarian landscapes of Japan are on the decline due to a variety of factors such as urbanization, rural depopulation, and unsustainable land use practices. Grasslands such as Aso were very near to village domains as the *susuki* type grasses were used for thatching roofs and fodder during the Edo period. However, with mechanized agriculture and change in building materials for houses the use of grasslands diminished. The Aso volcano and its caldera system still retain such unique grassland features. One of the factors for the sustenance of the grasslands at Aso is the particular geological formation of the landform, where we can observe the interaction of geology and culture. However, the grassland based Satoyama of Aso is on the decline as well along with the associated socioecological knowledge and the ecosystem services. This poster therefore deals with the major characteristics, functions, socioecological properties and ecosystem services of the Aso grassland landscape for sustainable management of such unique human managed ecosystems.

Keywords: Satoyama, grasslands, socioecological systems, ecosystem services, Aso Volcanic area, Japan