

# Aso

## Goal

Preserve the highly diverse grassland ecosystem and landscape and realize the continuous management for their sustenance in collaboration among various entities

**Designation:**  
Aso-Kuju National Park  
**Location:**  
Minami-aso, Oguni, Minami-oguni, Ubuyama and Takamori, Aso-gun, Kumamoto Prefecture; Aso City, Kumamoto Prefecture  
**Year Initiated:** 2003

**Aso Grassland Restoration Committee (as of September 2009)**

The Committee discusses necessary matters for promoting maintenance, preservation and restoration of the Aso Grassland.  
Date Established: 2 Dec. 2005  
Members: 131  
Date Issued the Overall Plan: 7 Mar. 2007  
Date Issued the Implementation Plan: 4 Mar. 2009  
(Aso Project, sponsored by MOE)



(Photo by Norio Ootaki)

The Aso Grassland spreads in and outside of one of the world's largest calderas, with the caldera's reaching a size of 18 km east to west, 25 km south to north, and a perimeter of 100 km. The Grassland was formed by resource use during historic times, where volcanic activity constrained forest development. This historic grassland condition has sustained through grass harvest, cattle ranching, burning, and other human interventions, protecting the expansive grassland landscape and ecologically rich habitats for diverse plants and animals.

Maintaining the Grassland, however, is increasingly difficult because of changes in farming and life styles, livestock industry depression, aging and scarce successors in the farming populations, and other social and economic changes. As a result, the grassland landscape and ecosystem have been declined, marked with a loss or degradation of grass cover. Therefore, efforts are underway to restore the historic grassland environment that had been protected by a long-term proper management and to leave them to the future generations.



A late autumn scenery, stacks of grass.



Hanashinobu (*Polemonium kiusianum*, endangered, Category: 1A)



Tsukushi-matsumoto (*Lychnis sieboldii*, endangered, Category: 1B)



Ooruri-shijimi (*Shijimiaeoides divinus*, endangered, Category 1)(Photo by Akinori Terasaki)

### Changes in the area of Aso Grassland



In the late 1800s to early 1900s

In the 1940s

Present

## Approaches

- ▶ Help design and promote new management practices and tools →①②③
- ▶ Resume grassland management in abandoned fields →②
- ▶ Rehabilitate heavily destroyed or damaged grassland habitats →③

Aso Grassland is a secondary system sustained by the community activities. For its preservation and restoration, therefore, it is vital to continue pasture management operated mainly by the association of local ranchers. To that end, various actions are underway - promoting prescribed burning and firebreak construction with reduced workloads; helping begin cooperative practices with volunteers and NPOs; and restoring biodiversity by rehabilitating seriously degraded grassland habitats.



Fall harvesting (Photo by Norio Ootaki)



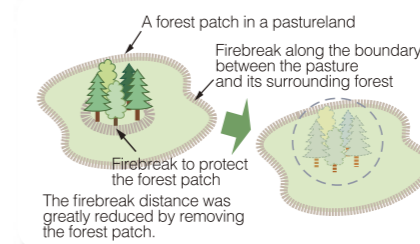
Field burning in spring



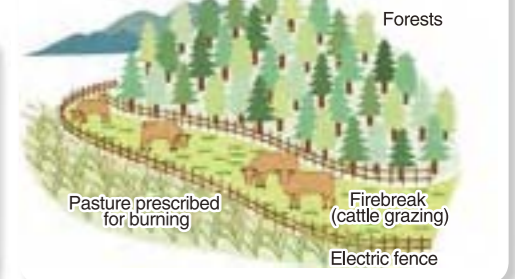
Area of National Park  
Grasslands managed by the rancher's association

### ① Designing and promoting firebreak construction with reduced workloads

With a decline of harvesting and grazing activities, forest plantation has developed in patches, increasing the workload of firebreak construction. Field burning is now difficult to continue in many pasturelands. To help continue periodic fire, essential for grassland preservation, firebreak techniques with reduced workloads have been developed and promoted. The techniques include using grazed lines as firebreaks and reducing fireline distance by clearing small forest patches in pasturelands.



Removing small forest patches



Grazed firebreak

### ② Beginning burning practice with volunteers

Grassland areas after cessation of burning are becoming brushy, diminishing the historic landscape and biodiversity. There is also a risk of erosion-associated hazards. To restore the healthy conditions of abandoned fields, firebreak construction and burning were resumed in cooperation of local community and volunteer groups. Prior to the implementation, all parties signed an agreement in continuing maintenance work.



Before beginning prescribed fires and maintenance.



After the fires

### ③ Rehabilitating wetlands and adjacent forest environment

Small wetlands scattered in the Grassland exhibit a high biodiversity. However, the diminished rangeland maintenance and increased forest plantation have altered wetland conditions. Restoration of original habitat conditions for wetland plants and animals is underway. Cedar trees that were crowded and tall because of insufficient cares were cut down to improve the light condition in the wetlands. The downed trees were used to build contour terraces to mitigate soil runoff into the wetlands.



A slope around a wetland after clearing plantation trees.



Contour log terraces for erosion control.