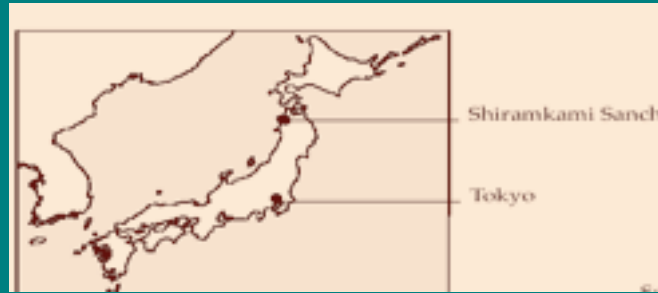




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A SUSTAINABLE ECOSYSTEM? JAPAN'S SHIRAKAMI SANCHI WORLD HERITAGE AREA

Robert J. Mason
Temple University
Philadelphia, US

“Nature” has generally been regarded more as a threat than as a source of solace in Japan. When the Japanese think of nature they think of the typhoons and earthquakes that have been a recurrent feature of Japanese life, not of undeveloped wilderness areas or the peaceful countryside. Moreover, the Japanese do not give the protection of animals the priority it has in the West. Until recently Japan continued to permit the import of products made from endangered species, such as ivory, whose import had been restricted by almost all other industrial countries. And while Japan has promised to reduce the number of fishing boats that use nets that kill marine mammals, it remains the only major industrial nation that continues to engage in whaling.

From Norman J. Vig and Michael E. Kraft. 1996. *Environmental Policy in the 1990s: Reform or Reaction?*, Congressional Quarterly Books.

JAPAN'S ENVIRONMENTALISM: PRO

- CO₂ & other emissions per capita
- Technology leader-energy efficiency, pollution control
- "Protection" of domestic forests
- Traditional respect for nature
- Stable population
- Food production/sources/quality

JAPAN'S ENVIRONMENTALISM: CON

- Japan's "shadow"--tropical timber, golf courses in SE Asia, Hawaii, relocation of industrial facilities, high-tech waste.
- Japan as construction state.
- Land use concerns: golf courses, resort development.
- Ecological concerns: e.g. forest biodiversity, wetlands, coastal ecology
- Endangered species trade
- Whaling?
- Driftnet fishing; bluefin tuna
- Nuclear power
- Smoking rate/Indoor Air Quality
- **LIMITED CIVIC INFRASTRUCTURE**
- Japan as Asian development model?-- development first, environmental protection later.

JAPAN: LIMITED ENVIRONMENTAL MOVEMENT

- Limited participatory culture
- Limited charitable ethic
- Official NGO recognition difficult and costly
 - Eased by 1998 NPO Law
- Very limited tax benefits for NGOs/donors
- Donations by check/credit card limited
- Limited access to information
 - Eased by 1999 Freedom of Information Law
- Legal tools limited--e.g. court challenges that come from parties other than direct victims
- Government agencies see NGOs as expanding capacity of government agencies, rather than challenging their actions
 - 1997 Environmental Impact Assessment Law provides some new opportunities for citizen involvement

ELEMENTS OF PLACE-BASED PLANNING

- Ecosystem Quality
- Environmental Justice
- Cost Effectiveness
- Planning Effectiveness
- Civic Engagement

WORLD HERITAGE SITES

Exceptional cultural and natural sites,
of outstanding value to all humankind.

Natural sites are formally defined as
those that contain “outstanding physical,
biological and geological formations,
habitats of threatened species of animals and plants and areas
with scientific, conservation or aesthetic value” (UNESCO)

The World Heritage List

851 properties

660 cultural sites

166 natural sites

25 mixed sites

JAPAN WORLD HERITAGE SITES

- Buddhist Monuments in the Horyu-ji Area (1993)
- Himeji-jo (1993)
- Shirakami-Sanchi (1993)
- Yakushima (1993)
- Historic Monuments of Ancient Kyoto (Kyoto, Uji and Otsu Cities) (1994)
- Historic Villages of Shirakawa-go and Gokayama (1995)
- Hiroshima Peace Memorial (Genbaku Dome) (1996)
- Itsukushima Shinto Shrine (1996)
- Historic Monuments of Ancient Nara (1998)
- Shrines and Temples of Nikko (1999)
- Gusuku Sites and Related Properties of the Kingdom of Ryukyu (2000)
- Sacred Sites and Pilgrimage Routes in the Kii Mountain Range (2004)
- Shiretoko (2005)
- Iwami Ginzan Silver Mine and its Cultural Landscape (2007)

JAPAN'S PROTECTED LANDS

- About 2/3 of Japan is forested
- 54% of Japan's forests classified "Natural"--but much of this is heavily disturbed or plantation forest.
- 24% of Japan's land base is some form of protected area, but areas in which nature conservation is an explicit priority comprise much lower percentage

McGraw-Hill
Higher Education

1. Definition

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3. Iran
4. Kishino, Malaysia
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- 2. *Geothlypis* (warblers)
- 3. *Spizella* (finches)
- 4. *Parus* (jays)
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- The World Heritage & Biosphere Centre**
UNESCO World Heritage Centre
Office for Natural Conservation
Regional Office for the Pacific
Avenue 100
Suva, Fiji
Phone: +677 330 0100
Fax: +677 330 0101
Email: whc@unesco.org
Website: whc.unesco.org

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Abstract

100

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Journal of Internal Medicine 255: 105–112

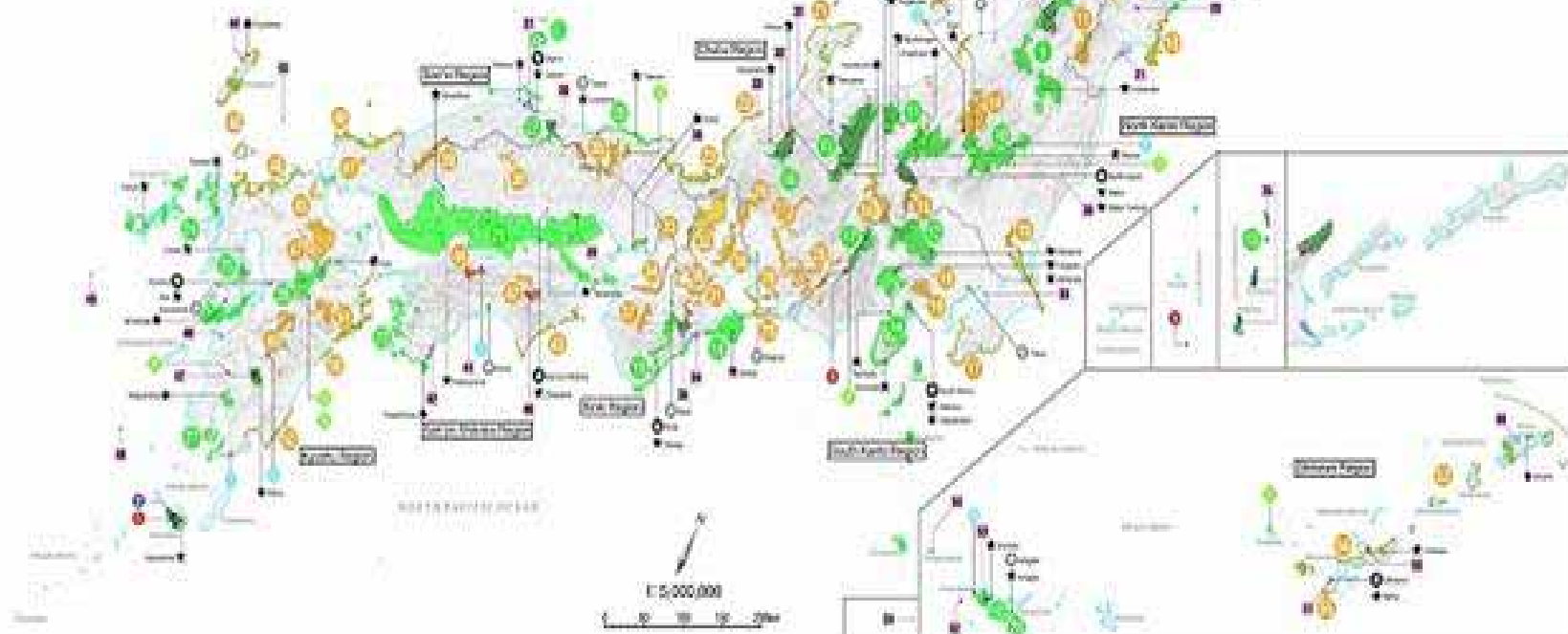
 McGraw-Hill

Figure 1 *Diagram illustrating the study design. The study was conducted in two phases. In the first phase, 100 subjects were recruited from the community and screened for eligibility. In the second phase, 50 subjects were recruited from the community and screened for eligibility. The subjects were then randomized into two groups: the intervention group and the control group. The intervention group received the intervention, and the control group received the control. The subjects were then followed up for 12 weeks. The primary outcome was the change in the number of cigarettes smoked per day. The secondary outcome was the change in the number of cigarettes smoked per week. The subjects were then followed up for 12 weeks. The primary outcome was the change in the number of cigarettes smoked per day. The secondary outcome was the change in the number of cigarettes smoked per week.*

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Instructions to a Program

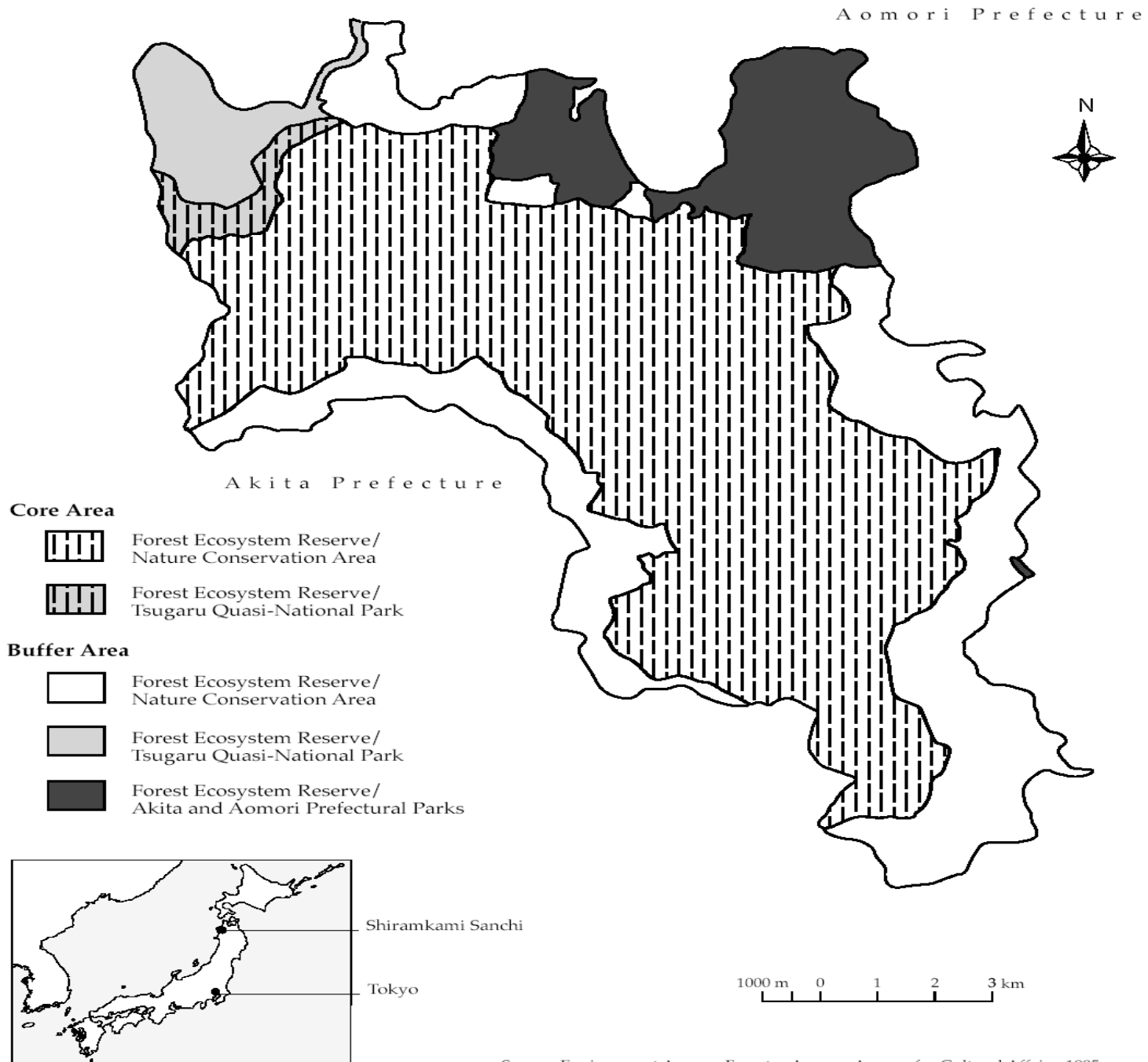
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Shirakami Sanchi World Heritage Area Management Scheme



SHIRAKAMI SANCHI DESCRIPTION

- Age: ~ 9,000 years (post-glacial forest)
- Climax Species: Siebold's beech (Japanese beech), or fagus crenata, and the average age of today's trees is about 200 years.
- World Heritage area: 17,000 ha
- Larger Shirakami Sanchi: 45,000 - 130,000 ha
- Relief: Average elevation ~ 1,000m; max. elevation 1,243m. Deeply dissected

- **Climate:** Temperate, with winter precip max. Heavy snow
- **Noted fauna:**
 - **Black Woodpecker (dryocopus martius)**
 - **Japanese serow (capricornis crispus)**
 - **Japanese black bear (selenarctos thibetanus)**
- **Biodiversity:** 5-6X comparable European beech forests
- **Economic activities:** Fishing, vegetable gathering, bear hunting, limited tourism
- **Traditional occupants:** matagi

- **Regional population trend: Declines of 2.5 to 10 percent between 1990 and 2000 for towns with land in or adjacent to World Heritage Area.**
- **Regional economic activities:**
 - maitake
 - locally-subsidized housing
 - tourism (Mt Iwaki, Anmon Falls, etc.)
 - eco-tourism
 - forestry
 - apple-growing

SHIRAKAMI SANCHI KEY DATES

- 1958** Forest Road--*seishu rindo*--first proposed by town of Hachimori
- 1978** Hachimori, Nishimeya, Ajigasawa, Iwasaki Minehama, and Fukaura establish “Association for Attainment of Promotion of Seishu Path Establishment
- 1980** Formal request by Akita for Seishu path establishment
- 1981** *Seishu Rindo* route established
- 1982** *Seishu Rindo* plan approved by Forestry Agency; construction started

- 1982 Association to Preserve Nature of Akita proposes to Akita Pref. Government that road be stopped
- 1983 Association to Preserve the Shirakami Mountains Beech Tree Forests established
- 1984 Nature Conservation Society of Japan (NACS-J) and Wild Bird Association ask Akita to discontinue road construction
- 1985 Akita alters route so that more of Seishu Rindo is in Ajigasawa (Aomori)
- 1985 NACS-J holds beech tree symposium in Akita; also active in Shiretoko preservation
- 1987 Local groups--together w/NACS-J and Wild Bird Society--present petition to Aomori requesting government NOT de-designate Water Conservation Forest area

- 1988/1989 Road construction halted, after 5.3 km completed in Akita and 3.2 km in Aomori
- 1990 Shirakami Forest Ecosystem Reserve designated by Forestry Agency
- 1992 Nature Conservation Area designated by Environment Agency
- 1992 Japan signs World Heritage Convention
- 1993 Yakushima, Shirakami Sanchi designated as World Heritage Nature areas



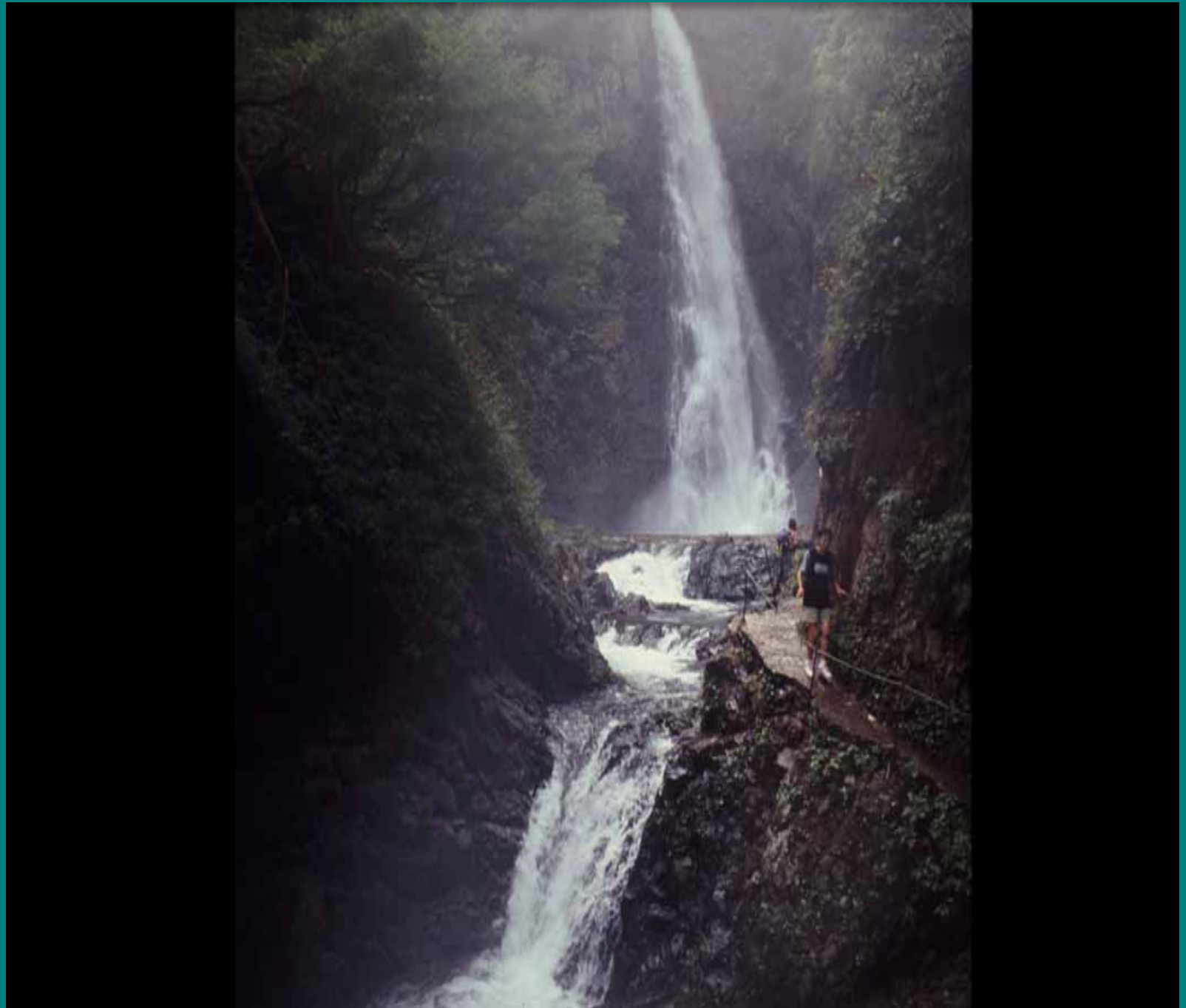




Shirakami-sanchi World Heritage Area Management Plan

The Environment Agency
The Forestry Agency
The Agency For Cultural Affairs













目屋又鬼

工藤光治

〒036-14

青森県中津軽郡西目屋村
大字砂子瀬字又鬼九ノ七六
TEL(0172)85-3412

Japanese Professional
Bear Hunter

Mitsuharu Kudo

Sunakose, Nishimura, Naka-Togaru
036-14, Aomori, JAPAN
TEL(0172)85-3412











BROAD CRITERIA FOR EVALUATING PLACE-BASED PLANNING

- Ecosystem quality
- Environmental justice--distributional effects
- Cost effectiveness of planning schemes
- Planning effectiveness--does collaborative planning “work” and will it continue to over long-term?
- Civic engagement. Has planning program strengthened citizen engagement?

SHIRAKAMI SANCHI MANAGEMENT ISSUES

- Public participation
- Matagi
- Tourism promotion
- Wilderness area management as learning experience
- Monitoring and patrols as collaborative experiments