

MISSION REPORT

The Conservation Status of the Shirakami-Sanchi and Yakushima World Heritage sites, JAPAN

[Final, 19/4/98, incorporating comments from EA and FA]

1. INTRODUCTION

The mission was carried out in response to the request of the Committee, when the two sites were inscribed in 1993, for a follow-up inspection to be carried out after 3-4 years to assess progress in the establishment and management of the two sites. Although the Committee anticipated that the Japanese authorities would act upon many of the recommendations in the original IUCN evaluation report, a follow-up mission was considered to be beneficial to all parties because of the complexities of the Japanese management structures.

Management Plans for both sites were prepared by the three management agencies:

- . the Environment Agency
- . the Forestry Agency, and
- . the Agency for Cultural Affairs

in late 1995. Long standing roading proposals had been raised as potential threats to both sites. In particular, the widening of part of the so-called 'Seibu Rindoh' road through the warm temperate rainforest of the Yakushima site (on the western side of Yakushima Island) had generated local controversy; members of IUCN's Commission on Protected Areas had received concerns from interested scientists regarding any further widening of the road.

The mission was held from 14 to 22 October 1997. It involved meeting with government officials in Tokyo before and after the field inspections of both sites. There were also meetings with prefecture and municipality representatives in both heritage site locations. Media interest in the IUCN mission was high. Media accompanied the mission on most field inspections. Two press conferences were given and the two world heritage areas were given extensive TV and press coverage.

The mission members were Dr. Les Molloy from New Zealand (a member of the 1993 IUCN evaluation team for the two sites) and Mr. Peter Hitchcock of Australia.

2. GENERAL COMMENTS

2.1 Administrative Complexities of Site Management

The complexities of the administration of Japan's natural world heritage sites was again apparent to the mission team. Involvement of the three agencies listed above occurs at both the national and regional level. In addition, the prefecture administrations have a major role, especially in road access, utilities, aspects of resource use in the areas around the periphery of the sites, promotion, visitor information and education. Municipalities (generally mountain or island towns) are also involved, often funding roading upgrades, specific visitor facilities, and information for visitors. Management Boards representing the three agencies, and the relevant prefecture(s) have been established (in accordance with the management plans) for each site.

The mission team were impressed at the obvious commitment of all agencies towards the concept of world heritage and its protection. However, this obviously required a lot of co-ordination (and possibly duplication) and it would seem that the World Heritage Convention's requirements for site protection and quality management could be better served by a strengthened and integrated environmental management institution.

2.2 Support for World Heritage from local people

The mission team were also very impressed with the commitment that the Japanese people were making towards the protection of world heritage at the local level. Many town representatives and local people spoke with obvious pride in their heritage site, with which they had had a long cultural association. Invariably, the scientific significance of the sites was a further dimension which they had now come to appreciate. Their response was diverse: initiatives for interpretive and educational programmes, visitor information centres, volunteers for guiding and patrolling, etc. Most impressive was their understanding of the need to manage sympathetically and sustainably the buffering lands around the world heritage site.

3. SHIRAKAMI-SANCHI

3.1 Management Structure

The 9 member Management Board for the Shirakami-Sanchi World Heritage site was entirely made up from government representatives. The local communities and traditional user groups were not represented in this structure, although the board had convened two round table meetings (in each of Aomori and Akita prefectures) of community groups to learn of management issues that concerned various parties.

Given the obvious support coming from towns like Nishimeya, Fujisato and Hachimori, the mission team believes the management board would be strengthened if this local community of interest was provided with the opportunity for direct participation in a partnership with Government. Furthermore, the community 'round table' meetings should not just be *ad hoc* but should be regular events to provide for greater guarantee of community participation and to build further community support for the world heritage site. The same argument applies to the need for regular scheduled meetings of the management board – something which was not clear from the conservation status report.

3.2 Management Planning

The present management plan is a good start but is more of a policy document giving strategic directions. It does not deal with current critical issues, goals, or timelines for implementation of action programmes nor does it spell out the means and processes for applying development controls. Reliance upon discretionary decisions by senior officials does not guarantee certainty or consistency.

It would seem timely for the next levels of planning, development control and 'action planning', to be initiated for the site.

3.3 Site Boundaries

It was noted favourably that the IUCN recommendation, for the originally-proposed buffer to be incorporated within the site, had been carried out.

The lack of a buffer zone in part of the Akita prefecture was noted but national forest zoning in this locality is primarily for nature conservation. In essence, there were no real boundary concerns. It was suggested to the mission that there may be scope for further extension of the site to include forests adjoining to the south and east. Exploration of any such options should be encouraged.

3.4 Visitor Access

The approach of the Aomori advisory group differed from that of the Akita advisory group in terms of visitor access to the 10,000 ha core area. Aomori seemed to have a long history of traditional access to the Shirakami-Sanchi for the seasonal harvesting of wild foods and for recreation. They believed that such responsible visitors should be allowed access to the core area. As a consequence, 27 sections of routes along stream beds and ridges (where visitor use was judged to have a very small adverse effect on the natural environment) were authorised as 'designated paths'. Akita, on the other hand, considered that there should be no authorised access to the core area.

The board has acceded to the wishes of both parties, with no designated access routes in the smaller Akita portion of the core area. This is considered to be an interim arrangement and it will be reviewed as the impact of visitors to the Aomori sector is assessed.

Access to the core area is obtained through a permit system administered by the Aomori staff of the Forestry Agency. The mission team felt comfortable with the cautious approach that was being taken but warned that over-zealous bureaucratic restrictions of traditional users and mountaineers (with high levels of wilderness survival skills and environmental ethic code) could be detrimental in the long-term --by alienating the people who are traditional conservationists and potential strong allies of the management board. Similarly, approval of all permit applications with minimal scrutiny may render the permit system ineffective and redundant.

3.5 Threats to the Site

The team were assured by Forestry Agency officials that they no longer had any intention of building any further roads within the world heritage site. However, the management plan states (p.5) that such construction in the core area will only be "strictly regulated" and the mission team recommended that this be revised to "not allowed".

Another threat was the inability of the management agencies to control the access (to the core area) of fishermen up the major rivers. The regulation of freshwater fishing is the responsibility of a separate agency. The matter has been raised with concern and the respective agencies are investigating the seriousness of this impact on the wilderness values of the rivers in the core areas.

3.6 Conservation Initiatives

A number of excellent local conservation education initiatives were brought to the attention of the mission team. It is considered that more needs to be done to raise local awareness of the Asian black bear as a component of the forest ecosystem which needs to be understood and protected. Unfortunately, there are still caged bears for public viewing in the Twelve Lakes area on the margins of the world heritage area; such captivity is increasingly unacceptable to the community and could attract international criticism in the event of what seems to be the inevitable arrival of international tourism in and around Shirakami - sanchi. A comprehensive research and education programme is needed to further change community appreciation of the black bear, at the same time as ensuring that its threat to neighbouring agricultural lands is managed.

3.7 Visitor Facilities, Quality of the Recreational Experience, and Environmental Impacts

The mission complimented the authorities on their attempts to cater for most visitor recreation needs outside the world heritage site (but still within the Shirakami-Sanchi, around the periphery of the site in places like Nishimeya, Juniko Twelve Lakes and Fujisato).

In particular, the road leading through Hachimori Town to the montane forests below Mt. Futatsumori is a quality facility.

However, there are areas where inappropriate visitor facilities are having a detrimental environmental impact. At Armon Falls, a high visitation, easily-accessible scenic area in the buffer zone, concrete paths have been repeatedly undermined by the river. It is also apparent that the standard and location of the pathway is not compatible with the natural hazards and potential visitor experiences of the locality.

The greatest concern of the mission team, however, was the impact of foot traffic on the track to the summit of Mt. Futatsumori. A significant track 'puddling' problem was developing here in the wet, peaty soils and the management techniques were not proving effective in this wet environment. Discussion with the managers also indicated an over-sensitivity to criticism from those conservation groups who were opposed to anything but the most rudimentary facilities.

The mission team convened a fruitful evening discussion on these visitor management problems to try and encourage the managers to take a more urgent (and objective) perspective on what would be

appropriate and sustainable visitor facilities in the longer term rather than unquestioned commitment to incremental upgrade of a pre-existing track. The importance of the Mt. Futatsumori track as the major route for a wide class of visitors to reach the edge of the core area was emphasised. Clearly, there is also a need for the managers to continue to try and earn the trust of all concerned users.

3.8 Visitor Information, Interpretation and Education

Major world heritage visitor centres were in the process of being constructed in Nishimeya (Aomori) and Fujisato (Akita). The Nishimeya centre had adopted the ecology of beech forests as its interpretive theme, intending to extend the visitor into an understanding of the role that beech forests play in temperate latitudes throughout the world. This was just one of several examples of how the Japanese people are taking a global approach to the understanding and protection of world heritage.

Visitor publications were beginning to be produced in Japanese; there was only one bilingual (Japanese/English) map brochure (whereas the Yakushima site now has an impressive array of bilingual publications, appealing to a more international character of visitor).

The range of visitor information signs was very variable in standard, design and placement and often seemed to stress the role of the particular agency which built the sign. Improvements are needed to bring these up to a standard more befitting a World Heritage Area.

3.9 Community Support: local, national and international

Local community support seemed excellent and has already been commented on as one of the most pleasing findings of the mission.

At the prefecture level there seemed to be very good collaboration between Aomori and Akita -- and also between the regional representatives of the central government agencies.

There is an interest in international initiatives, such as "sister world heritage" arrangements ("sister cities" are taken seriously in Japan) and in ranger exchanges with other temperate rainforest sites. In discussions, the members of the mission pointed out that the level of local support should not be taken for granted and on-going effort was needed to maintain or even improve on the current high level of support.

We also suggested that community representation and hence community support would be enhanced by female representation in the Committee and staff of the World Heritage Area.

3.10 Financial and Staff Resourcing

Given the overwhelming wilderness character of Shirakami, the relatively low levels of visitor numbers within the site, and the effective buffering of the site, there is no real crisis in providing the resources necessary for protection of the area. The matter of inadequacy of ranger staff numbers was not raised (see #4.4 for Yakushima).

4. YAKUSHIMA

4.1 Management Structure

The Yakushima World Heritage site management board has 5 members, again all management agency and prefecture staff. In view of the high integrity of both the natural and cultural communities on the island, the mission team considered that the board should be increased by two, to accommodate the representatives of the two administrative sectors (Yaku town and Kami-Yaku town) of the island. Both mayors stressed the openness of the existing board to their presentation of the views of the local people "as the need arises" (p.29 of the 1997 Yakushima conservation status report). However, they also stressed that they considered their formal involvement would strengthen the overall role of the local population in the site.

Since the 1993 evaluation of the site, the Forestry Agency have reorganised the two District Forest

Offices into one District Forest Office -- and a Forest Conservation Centre, to enhance management and conservation of the national forest including the World Heritage site. The Environmental Agency has three staff for Yakushima park management, under the regional administration on Kyushu.

4.2 Management Planning

The mission team had the same concern that the management planning for Yakushima had to now start moving towards the more detailed level of development control and 'action plans' (see discussion in #3.2).

4.3 Site Boundaries

The review team was disappointed that neither the management plan nor the conservation status report addressed the original IUCN concern about the seemingly illogical location of the world heritage boundaries within the central uplands. In particular, the IUCN evaluation team had asked that the relevant authorities look at 'filling in' the area around the main Yakusugi in the headwaters of the Anbo River --- including Okina-sugi, Wilson's stump, Daio-sugi and Meoto-sugi --- by extending the boundary of the then nominated site.

A similar request had been made for the authorities to open discussions with the traditional owners to see if they would agree to having the magnificent Senpiro-no-taki waterfall (and its superb exfoliating granite landscape) included in the world heritage area. It is suggested that addition of the area to the World Heritage Area be negotiated.

Because the team were lucky enough to experience three consecutive fine days in the field, they were able to visit Kigen-sugi and its forest surrounds. This is a very impressive cool temperate coniferous forest (large, mature specimens of *Cryptomeria japonica*, *Tsuga sieboldii* and *Abies firma*) along the 'Anbo Forest Path' (in reality a road) above Yakusugi Cedar Land. This sector of the island, through to the Yodogawa Mountain Trail entrance, could also be considered for world heritage status.

The above are just several examples of areas which have the potential for addition to the World Heritage Area, to increase the heritage value of the site and to improve the credibility of the boundary.

The Forestry Agency stated that a comprehensive Forest and Forestry Development Plan had been formulated for all the national forest which surrounds the world heritage site in December 1993. In line with this planning, further policy and guidelines for recreational use of Yakushima had been developed in February 1996, to bring about more practical management of visitors to the national forests on the island.

The Environment Agency is building on the World Heritage site management plan, to develop a wider Yaku Park Management Plan.

The mission team endorsed such attempts at achieving more comprehensive, integrated planning for the island. In effect, the national forests dedicated for nature conservation and recreation purposes would continue to act as the world heritage site buffer in the meantime -- but could be more closely evaluated by experts with a view to the best parts being eventually added to the site. Any comprehensive planning on Yakushima is highly desirable, but especially if such planning were to embrace the whole island and look at the environment and heritage values of the island in an holistic way.

4.4 Threats to the Site

The long-standing issue of proposals to widen the 'Seibu-Rindoh' road is the main threat to the integrity of possibly the most ecologically-significant altitudinal sequence of forest in the world heritage site. No clear reason has ever been expressed to IUCN by Japanese authorities of the necessity for such road-widening --- other than that this would bring it into line with the standard of roading in the rest of the island. The mission did learn from unofficial sources that the main pressure for the widening of the road came from the operators of large tour buses (which were currently unable to navigate the tight corners along the forested section). Conventional wisdom in conservation planning suggests it is far more environmentally appropriate and cost effective to change the size of

the buses instead of the size of the road.

Discussions were held on site with agency staff and the mayors during the field inspection. It was also noted that there were virtually no landslips on the 9km section of road which still retained a narrow carriage-way and a largely 'closed-canopy' of warm temperate rainforest. In contrast, typhoons had caused extensive slipping of deforested slopes on the recently-widened section of the road around Nagata lighthouse. This is only an empirical observation which is not based on any scientific investigation of the geology of the entire road length. Nevertheless, it is one of the factors contributing to a change in heart by the islanders, i.e., a recognition that the Seibu-Rindoh road in its present state is one of the important features by which visitors (and the islanders) can experience the full sweep of the warm temperate rainforest (and its monkeys, Shika deer and birds).

Both IUCN members of the mission stated that the road in its current state *is an outstanding world heritage amenity, a road engineered with such environmental sensitivity that it would be the envy of many other forested world heritage sites*. The mission concluded that the road in its current state should be recognised as a positive visitor experience and hence economic asset. An average of only 30 vehicles per day use the road (but this can rise to 160 in the August holiday season). This peak number seemed too small to warrant prejudicing the amenity values of the area and placing this section of the world heritage site at risk of environmental degradation, including landslips induced by mechanical interference with the steep slopes.

Another threat to the management of the site – the low numbers of rangers (only 3) employed by the Environmental Agency – was raised by both mayors at our meeting. The low level of 'national park' ranger staffing in Japan was raised as a matter of concern in the 1993 OECD Environmental Performance Review of Japan. That it was raised as a matter of concern by the representatives of the Yaku islanders, lends weight to this general perception that Japan needs to put more core management staff (as distinct from volunteers) into the field for its two world heritage areas. This shortcoming would seem to apply to both the Forestry and Environment agencies.

4.5 Conservation Initiatives

Two of the conservation initiatives which came to our attention were (a) the municipal nursery (in Kamiyaku Town) where a range of Yakushima's threatened plants were being raised for rehabilitation projects, and (b) the educational campaign (especially the attractive car stickers) "Don't feed the (Yaku) monkeys", which had been arranged by the Environment Agency and park volunteers.

4.6 Visitor Facilities, Quality of the Recreational Experience, and Visitor Impacts

The mission team were impressed with the attempts to channel most casual visitors to the world heritage 'area' into two locations accessible by car but outside the world heritage site itself – Yakusugi Cedar Land (on the Anbo Forest Path) and the natural forest at the Shiratani Unsuikyo Ravine (on the Shiratani Forest Path). High quality tracks and bridges were being built at both sites but on-site interpretation was virtually non-existent (and an unsightly plethora of different signs marred the entrance to the former site). It appears that most natural heritage interpretation will be done by commercial guides.

The major concern of the mission team was the deterioration of the Ohkabu Mountain Trail through the foot traffic of visitors climbing to Jomon-sugi and Miyanoura-dake from the Arakawa valley railway. Some protective work had been carried out around the roots of the major yakusugi, sections of wooden steps had been put in place, and a quality viewing platform and shelter had been built at Jomon-sugi. The facilities at Jomon-sugi seem to meet the twin objectives of protecting this outstanding 'natural monument' as well as allowing visitors a close view of this impressive tree.

However, there are large sections of the mountain trail which are in a bad state because of the often inappropriate location of the track combined with the easily erodible nature of the sandy (granitic) subsoils in such a high rainfall environment. Remedial action is urgent for both environmental and visitor experience reasons and the likelihood that visitor numbers will continue to increase. The mission were told that the high altitude section – the Miyanoura Mountain Trail – was scheduled for

upgrading in the immediate work programme. Our view is that the authorities need to also urgently protect the most problematic sections of the track surface on the climb to Jomon-sugi, for this icon will continue to act as the major drawcard for visitors within the world heritage site.

Rather than de facto commitment to incremental upgrade of the existing often poorly located track, we recommend a thorough review and replanning of the walking track to ensure the optimum combination of environmental, visitor experience and maintenance cost factors.

Vehicular access along the Anbo Forest Path (road) above Yakusugi Cedar Land was also discussed. Currently large buses cannot travel beyond the carpark at Yakusugi Cedar Land to the Kigen-sugi site because of the nature of the narrow road (especially the inability for buses to turn around). The local municipality representatives favoured the idea of smaller, quieter, environmentally-friendly 'hybrid' buses to transport visitors along this outstanding 'coniferous cloud forest' road as far as the Yodogawa trail entrance. The mission team welcomes their idea, further evidence of the serious interest of the local municipalities in the protection of the world heritage values as visitor pressures increase.

Again we encourage adjustment of vehicular dimensions in preference to road widening and larger bus turning areas at Kigen - sugi. The limitation of bus sizes to say 22 seat capacity has the added advantage of more manageable group sizes on boardwalks and tracks, contributing to an enhanced visitor experience.

4.7 Visitor Information, Interpretation and education

Yakushima Island and the world heritage site now have an impressive range of visitor information, interpretation and education facilities and services.

The Yakushima Environmental and Cultural Village Centre, constructed in Miyanoura by the Kagoshima Prefecture, is a world class visitor centre, giving an overview of the entire island and an introductory interpretation of the world heritage site and its conservation and cultural significance.

Near Harumaki, on the main entrance to the core of the world heritage site (Anbo Forest Path) there are three further visitor educational facilities – the Yakusugi Museum (which just predated the designation of the world heritage site), the Yakushima World Heritage Conservation Centre, and the Yakushima Environmental and Cultural Learning Centre. The latter serves as an educational field centre/resource centre for Japanese students and is associated with the Miyanoura Village Centre.

Information brochures, posters and maps are also of high quality. The Forestry Agency has a good combined map/brochure on the national forests (and environment) of Yakushima. Some high quality information in other languages, such as the "Yakushima ecomap" is now available for the visitor.

Understandably, there is a strong focus on promotion and interpretation of the yakusugi as visitor destinations. However, we believe that many visitors will be interested in other aspects of the nature experience on the island, including some of the spectacular coastal scenery, the Seibu - Rindoh road experience, spectacular mountains and gorges (e.g. Ohko River), mixed coniferous forests (e.g. Yaku - sugi Cedar Land) and waterfalls (e.g. Ohko - no - taki). At least Yaku - sugi Cedar Land is already being promoted as a visitor destination alternative to the World Heritage Area but others could similarly be promoted as valuable alternative destinations to the Jomon Sugi precinct with its environmental management problems.

Yaku Sugi Cedar Land has the potential to be managed as part of, or in close cooperation with, the World Heritage Area but we would recommend a planning review of YSCL to improve the standard of presentation and interpretation. YSCL provides opportunities for easy access to good examples of a whole range of coniferous species in the one precinct, something which may be difficult to achieve in any one part of the World Heritage Area.

For such a relatively small island, Yakushima has an extraordinary set of visitor information centres, museums and educational centres that would be the envy of the world. With the coordination of these resources, which is already occurring, these facilities can be expected to provide world class information and education opportunities for the visitor to the island. Good coordination of these

facilities will help considerably in improving community awareness and appreciation of the outstanding natural and cultural values of the island, especially of the World Heritage Area.

4.8 Community Support

Local community support for the protection of the world heritage site seemed to be very high – and has already been commented on as one of the most pleasing findings of the mission. For most of the 3 days on the island the mission team were accompanied by the mayors of Yaku and Kamiyaku towns, and they contributed substantially to our discussions. The municipalities were often funding improvements, such as the upgrading of the Arakawa Forest Path.

Kagoshima Prefecture played an active part in the mission meetings and clearly are very supportive of the world heritage administration. The prefecture had just produced an impressive colour brochure on the need to conserve the red turtles which breed around the coasts of the prefecture (including beaches on Yakushima). The brochure was a follow up to landmark local regulations which provide legal protection of turtles while on land.

We consider that the managing authorities should not take the present high level of local community support for granted and should be pro-active in maintenance of that support. Official inclusion of representatives of the two local towns in the Yakushima World Heritage Area Liaison Committee would be one such positive initiative.

We also suggest that community representation and hence community support would be enhanced by female representation in the Committee and staff of the World Heritage Area.

4.9 Financial and Staff Resourcing

Given the increasing visitor pressures on the world heritage site – a trend that was not unexpected – there do seem to be financial and staff resourcing pressures on Yakushima. The mission did have some doubts about the obvious large amount of money being spent on bridges in Yakusugi Cedar Land while parts of the Okhabu Mountain Trail were being allowed to significantly deteriorate. It could be wise for the administering agencies to review their recreational facility development priorities on a whole - of - island basis.

The staffing deficiencies are raised in #4.4

5. RECOMMENDATIONS

1. That the Japanese Government be congratulated on the substantial progress which has been made in establishing management arrangements for the Shirakami - sanchi and Yakushima World Heritage Areas.
2. That the Japanese Government be congratulated on the apparently very high level of community support for the World Heritage Areas.
3. That the Japanese Government be provided with a copy of this mission report for consideration, in particular drawing attention to the following concerns and suggestions:

General

- Achieve greater participation of local communities and local government in the management process.
- Review and possibly simplify site management.
- On going proactive efforts to maintain the apparent high level of community support for the World Heritage Areas.
- Further development of the management plans to incorporate development control and activity programming.

Shirakami - sanchi

- The need for a concerted effort to address the immediate environmental and visitor experience issues associated with the Mt. Futatsumori walking track.
- The need to review the approach to the infrastructure development at Ammon Falls in the buffer zone.
- A review of signage and information to improve the quality of visitor experience
- The adoption of an educational programme to improve community attitudes towards the black bear.

Yakushima

- Suggested formal inclusion of representatives of at least the two local municipalities in the Yakushima World Heritage Area Liaison Committee.
- The need for a concerted effort to address the immediate environmental and visitor experience issues associated with the Ohkabu Mountain Trail and the suggested review and replanning of the track.
- Recognition of the special heritage values and visitor opportunities associated with the Seibu - Rindoh road and hence the potential adverse environmental impact on the World Heritage Area in the event of any road widening or straightening.
- Recognition of the value of a whole - of - island approach to management planning, in particular wildlife management, visitor information, visitor management and environmental education.
- Recognition of the potential for further significant additions to the World Heritage Area and with it, improvements in the integrity of the heritage values of the Area and of the boundary. This issue might be best addressed as part of the proposed comprehensive planning for the island.
- The need to further enhance the staffing levels of the World Heritage Area to meet the environmental and visitor management challenges already evident.
- The apparent need to review financial expenditure on recreational and visitor infrastructure on a whole - of - island basis.