





Institutional Partnership between Metsähallitus of Finland and Forestry Department of Hunan Province, People's Republic of China

20 Years of Biodiversity Conservation

20年生物 多样性保护

20 Years of Biodiversity Conservation

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热烈欢迎中外贵宾莅临张家界



Participants of the Opening Ceremony of International Forest Protection Festival in Zhangjiajie in September 1999. PHOTO: FDH.

Introduction

It is trendy to speak in favour of networking and partnerships, but often with little concrete or structured content. As regards the international environmental and forestry cooperation, it is common that governments and international organisations finance large-scale projects run by private consultants. Such projects may be successful in reaching short-term goals and generating reports. Long-term partnerships between similar governmental institutions provide a still largely overlooked supplementary tool, which could provide sustainable results at a low cost. Such institutional partnerships could be facilitated greatly by the avail-

ability of even modest external funding. The results from the partnerships may be excellent, including fundamental changes in the whole internal culture of the participating organisations, and the outputs may be reflected positively in other sectors of society, such as science and business. Long-term cooperation may lead to a long-term personal and organisational friendship and trust often missing from short-term projects.

When considering the special matters related to the management of protected areas, institutional partnerships are a feasible tool in enhancing the implementation of the Programme of Work on Protected Areas (PoWPA) of the United Nations Convention on Biological Diversity (CBD). Such bilateral cooperation

can also utilise the experiences gained from the transboundary cooperation of protected areas, a specific case of institutional cooperation.

The cooperation between Metsähallitus of Finland and the Forestry Department of Hunan Province, People's Republic of China, has been a fruitful and complex process, with various stages from the initial fact-finding excursions to the concrete projects, exchange of personnel, and to the exchange of professional information whenever needed. The pace of social and economic development in Hunan has been amazingly fast compared to that in Finland or Europe in general. Working together for two decades has played a role in changing the ways of thinking in both organisations

and helped to overcome the cultural differences. It has helped the Parties to modify their policies and actions to adapt to the fast-changing conditions. It has also opened the eyes of the personnel to see their own strengths and opportunities. It has helped the park professionals to work with colleagues from other cultures and to meet visitors and tourists representing foreign cultures.

After 20 years of institutional cooperation, it is useful and timely to give a short summary of the results of the partnership; not only to document the work done so far, but also to encourage other organisation to seek for similar partnership arrangements. The results may be something else than what was anticipated originally, some ideas may not lead to great successes, but a partnership will always leave a memorable mark. International cooperation may take some time away from domestic routines and cause extra efforts beyond the comfort zone, but it is surely worth it.

The Finnish-Hunanese nature conservation and forestry cooperation is a long-term institutional partnership. Both Parties, the Forestry Department of Hunan Province (FDH) and Parks & Wildlife Finland (P&WF, the former Natural Heritage Services) of Metsähallitus, have benefited from the cooperation. Since the signing of the cooperation agreement in 1995, almost all the original aims have been reached, with concrete and sustainable results. The results were very good in building the capacity of biodiversity conservation and parks management, with successful spin-offs in science, while the results in business remained modest. The bilateral relationship was first increasingly consolidated, cooperation realms enlarged and the contents enriched, then reached a peak, and finally became ordinary bilateral exchange of information and occasional visits, whenever needed between two friendly organisations. Several projects were successfully implemented, and more

than 80 persons participated in the personnel exchange and visits, and far larger number in the meetings and the arrangements of the visits. As a result, mutual understanding ameliorated during the process of joint implementation of the projects, personnel exchange and mutual communication. Trust to the partner, and personal and institutional friendship between the Parties were generated. The most important lesson learned has been the fundamental similarity of people. Warm reception and thoughtful arrangement were always seen, whenever the Finnish delegation visited China, and vice versa.

It is important that governmental institutions do networking and build up partnerships, not only to pave the way for business relationships, but also to enhance professional, scientific and cultural relationships and friendship at a personal level. Such cooperation may be seen as an essential element of the strategic foresight of an agency.

Deng Sanlong, Director-General,
Forest Department of Hunan Province

Rauno Väisänen, Director, Metsähallitus Parks & Wildlife Finland

famo Vains

► Hupingshan National Nature Reserve in Hunan. PHOTO: JOUKO HÖGMANDER.



Two Similar Organisations in Different Environments

Biodiversity in Finland

Finland is situated between the 60th and 70th parallels of latitude. Its

total area is about 338,000 km². A quarter of its total area lies north of the Arctic Circle. Finland's neighbouring countries are Russia, Norway and Sweden, and Estonia across the Gulf of Finland (Baltic Sea). In general, Finland is a flat country of forest, peatlands and lakes. The highest point, 1,324 m, is the Lappish fell Halti in Enontekiö. Finland is one of the largest countries in Europe.

Finland has four distinct seasons. The mean annual temperature in Helsinki is 5.9 °C. The highest daytime summer temperature in the South occasionally rises to +30 °C, while temperatures of -20 °C are common in the winter. In the

FINLAND

Hunan Province
PEOPLE'S
REPUBLIC OF
CHINA

North, in areas beyond the Arctic Circle, the sun does not set for about 73 days in the summer and it remains below the horizon for 51 days in the winter.

The population of Finland is 5.4 million. The population density is low, only 18 per km². About two thirds of the Finns live in urban areas in Southern and South-Western Finland. Most of the state-owned lands and protected areas are situated in the sparsely-populated

areas in the North, while the network of protected areas is very fragmented in the South, where privately-owned lands predominate.

In general, the Finnish nature is relatively poor in species, and there are hardly any endemic species. In the South, especially in the South-Western areas with deciduous trees, such as the Oak (*Quercus robur*), the fauna and flora are much richer than in the North. Some alpine species grow/occur in the Lappish fells.

Boreal forests cover about 75% of Finland's land area, and lakes and other water bodies almost 10%. The total forest area is 230,000 km². The most common tree species are the Scots Pine (*Pinus silvestris*), the Norway Spruce (*Picea abies*) and the Birch (*Betula*). There are about 190,000 lakes and 180,000 islands in Finland. The effects of the last Ice Age are visible in the landscapes. Owing to the brackish water, the Baltic Sea has a combination of marine and freshwaters species of animals and plants.

Owing to changes in land use, the biodiversity has decreased (e.g. Ministry of the Environment 2010). Many species of old-growth forests are threatened because of forestry activities during the



Finnish spruce forests in Syöte National Park. PHOTO: METSÄHALLITUS/JORMA LUHTA.

past decades. Large-scale restoration projects have improved the situation of biodiversity in peatlands and forests in protected areas in Southern Finland. Many species still seem to decline owing to the changes of the agriculture. Species of open meadows and pastures are decreasing because of habitat changes. In the Baltic Sea, eutrophication, oils spills and invasive alien species are threats to biodiversity. In general, the number of species seems to be increasing thanks to the expansion of new species to Finland as a result of the climate change. The changes have favoured species with good dispersal capability.



Typical terraced agriculture in Hunan Province. PHOTO: JOUKO HÖGMANDER.

Biodiversity in Hunan Province



The People's Republic of China has a total area of 9.6 million km². China

contains the richest temperate regions in the world and ranks globally as one of the richest countries in terms of plant diversity. China has many rare and endemic species of animals and plants. More than 2,697 nature reserves have been established in mainland China, covering about 15.24% of the land – almost 1.46 million km².

The Hunan Province is situated on the south side of the middle reaches of the Yangtze River, in South-Eastern China. It adjoins Jiangxi, Guangdong, Sichuan, Guizhou and Hubei Provinces and Guangxi Zhuang Autonomous Region. The northern part of the Hunan Province is mainly low-lying, but mountain ranges rim it in the east, west and south. The highest point, 2,099 metres, is in the Huping Mountains and the lowest, only 23 metres, in Linxiang City. With an area of 212,000 km², Hunan is one of China's largest provinces.

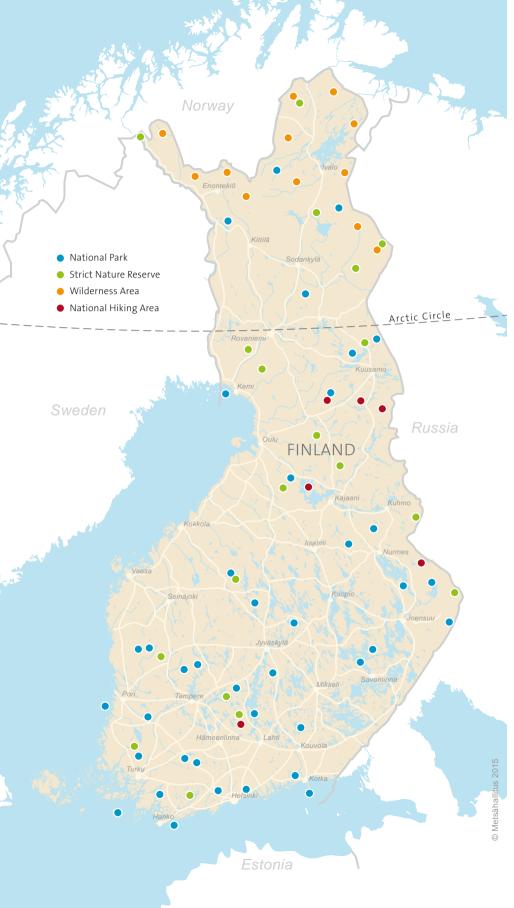
The province has a humid and monsoon climate with four distinct seasons. The annual mean temperature is 16–18.5 °C and the annual precipitation 1,200–1,700 mm. Hunan is part of the mid-subtropical ever-green-broadleaf zone.

There are some 69 million inhabitants, who live mainly in the valley of the Yangtze. The fertile valley is China's most important areas for production of cereal grains, especially rice. Fisheries are still an important livelihood. The large human population may cause problems for the natural environment. Although currently deforestation and drainage of lakes no longer constitute a threat to the conservation of biodiversity, occasional illegal hunting still poses a threat to the biodiversity conservation, and in spite of much improvement achieved during recent years, environmental pollution is worsening.

About 5,000 species of vascular plants are known to occur in the area. Of these, 1,900 are woody and 200 are commercial plants. The fauna is likewise diverse: 604 vertebrates, including 84 mammals, 373 bird, 60 amphibians and 87 reptiles.

The province is rich in wetland resources and the area of wetlands amounts to 10,197 km². The Dongting Lake, with an area of 2,625 km², is the second largest freshwater lake in China. The name Hunan literally means "south of the lake", because the bulk of the province lies to the south of the Dongting Lake. The shallow lake is important wintering and resting area for migratory birds, including many globally threatened species. It is the home of the endangered Finless Porpoise (Neophocaena phocanoides). There is a dense network of rivers and streams in the province. The four longest rivers in the Hunan Province, the Xiang, Zi, Yuan and Li flow into the Dongting Lake and join the Yangtze River through the Chenglingji outlet.

In addition, the increasing tourism has caused concerns over the impact incurred by the non-regulated activities. In spite of the natural, economic, social and cultural differences, there are many similarities between the FDH and Metsähallitus as regards to their mission, organisations and duties so that learning from each other makes sense.



HUNAN PROVINCE

Location 24°-30° N

Total Area 212,000 km²

Population 69 million

Forest Area 130,000 km² (61.4%)

National Forest Parks 52

Forest Parks 72

National Nature Reserves 22

Nature Reserves 168

Ramsar Sites 3

UNESCO Natural World Heritage Sites 1

FINLAND

Location 60°-70° N

Total Area 338,000 km²

Population 5.4 million

Forest Area 228,000 km² (67.5%)

National Parks 39

Strict Nature Reserves 19

Wilderness Areas 12

National Hiking Areas 6

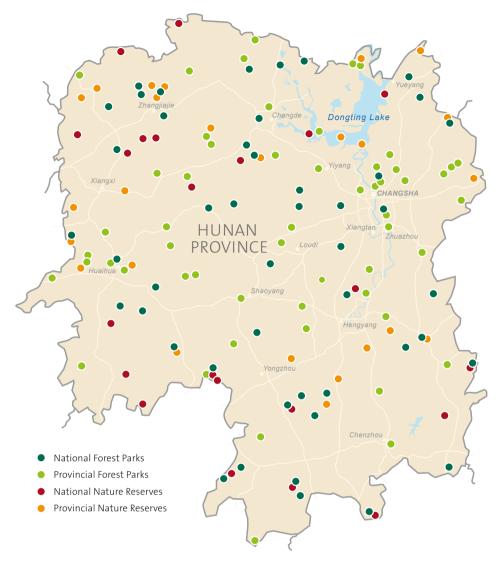
Ramsar Sites 49

UNESCO Natural World Heritage Sites 1

Metsähallitus and Forestry Department of Hunan Province

Metsähallitus is a state-owned enterprise with public-service obligations that restrict its business operations, and with public-administration tasks that are strictly separated from the business operations. Metsähallitus is among the largest landowners within the European Union with over 90,000 km² of state lands and 37,000 km² of waters. Its main task is to supply wood to the forest industry, from 36,000 km² of commercial forests, and to manage Finland's protected areas.

Parks & Wildlife Finland (P&WF, the former Natural Heritage Services) is responsible for all public administration



tasks of Metsähallitus, with funding from the state budget. P&WF manages more than 70,000 km², about 20% of Finland's total area, including 39 national parks and 19 strict nature reserves, more than 400 other protected areas, 12 wilderness areas and 6 national hiking areas, with the aim of preserving Finland's natural features, biological diversity and cultural values, and providing free facilities for outdoor recreation and opportunities for learning in nature. P&WF manages state-owned waters in lakes and the sea. The objectives of P&WF are set annually by the

Parliament, and defined in detail by the Ministry of the Environment regarding nature conservation, and by the Ministry of Agriculture and Forestry concerning the sustainable use of natural resources.

In addition, P&WF protects and monitors the occurrences of threatened species in state-owned lands, and is responsible for the nation-wide protection and monitoring of populations of several threatened species, such as the Golden Eagle (Aquila chrysaetos), the Gyr Falcon (Falco rusticolus) and the Saimaa Ringed Seal (Pusa hispida saimensis). On

the basis of everyman's right of free access to the land, P&WF also provides a variety of free-of-charge outdoor recreation facilities for everyone visiting the natural areas in Finland. From the beginning of 2005, the public services of P&WF include tasks related to the management of tree seed banks and log floating infrastructure, as well as to hunting and fishing.

The basic business task of Metsä-hallitus is to carry out environmental and customer-focused forestry.

Timber sales from managed forests accounts for approximately 90% of the turnover. Commercial forest management combines ecological, economic and social sustainability. One of the goals of the operations is to have diverse forests, which, in addition to providing wood profitably, can also be used for berry and mushroom picking and other outdoor activities, based on the Nordic everyman's right of free access to nature.

Similar to Metsähallitus, the Forestry Department of Hunan Province (FDH) is responsible for the supervision and management of the province's forestry establishment, ecological conservation and forestation, including specifically elaboration of relevant guidelines/policies, development strategies, establishment of public welfare forests and commercial forests. In addition, the FDH protects, governs and monitors forests, wetlands resources and terrestrial wildlife resources. Forest fire control and prevention is also one of the main responsibilities of the FDH.

The FDH has 11 divisions and 15 units. There is a forestry bureau in each city, autonomous region and county, while forestry stations have been established at town level. The total number of staff members is about 51,020. In addition, some central-government forestry institutions, including the Oil-tea Camellia

Research and Development Center of National Forestry Bureau, the National Engineering Research Center for Oil-tea Camellia, the National South Forest Aerial Fire Control Station, the National Armed Police Forest Force, and the Changsha Office of the National Endangered Species Import and Export Management Office.

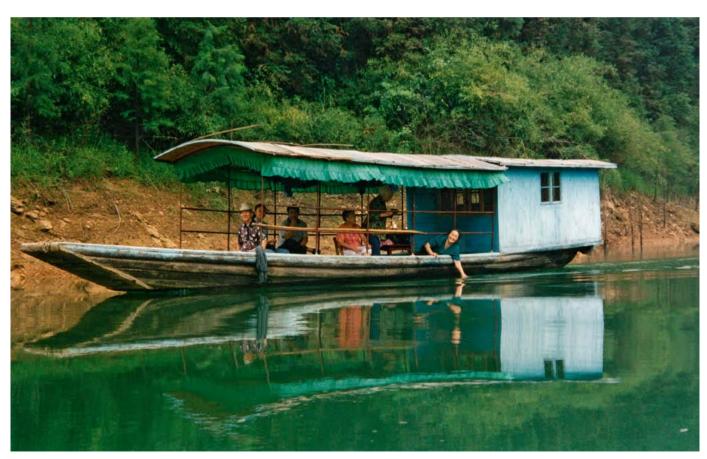
The Hunan Province boasts one of the key forest regions in South China. The total forestry land area is 129,989 km², accounting for 61.4% of the territory. The forests cover 59.57% of the land area and timber reserve totalled 484 million m³. A large-scale reforestation project is underway. It aims at preventing erosion and ensuring provision of ecological

service, and timber and raw materials for paper as well. The dominant species of timber forests are Chinese Fir (*Cunninghamia lanceolata*), Masson Pine (*Pinus massoniana*), broadleaves and Mao Bamboo (*Phyllostachys pubescens*), while the main economic tree species is Tea Oil Camellia (*Camellia oleifera*). The area of Chinese Fir amounts to 3.1 million ha. The broadleaves cover 3.1 million ha, the Poplars 96,000 ha, the Mao Bamboo 1.1 million ha, and the Tea Oil Camellia 1.3 million ha.

The FDH manages a network of protected areas, established to protect globally important and diverse ecosystems, wetlands and mountain forests in particular. So far, 190 nature reserves

including 22 national ones have been established. There are 124 forest parks, of which 52 are national. The state-owned forest farms totalled 207. Some 55,358 km² of public welfare forests were designated and protected.

By the end of 2014, a wetland conservation network, with rational structure, stable functions, and even distribution, consisting of three Ramsar sites, 49 pilot national wetland parks, 23 wetland nature reserves, and 18 sites of provincial importance, has been established. The area of wetlands under protection in Hunan Province reached some 0.7 million ha, and the protection rate 69.30%.



Nature tourists boating on a lake in Hunan Province in late 1990s. PHOTO: LASSI KARIVALO.

Brief History of the Cooperation

Background of the Cooperation

Already in the 1940s and 1950s, there had been Finnish missionaries in the Hunan Province in China. They included the famous Reverend Päivö Parviainen (1912–2015). Later the missionary work ended in Hunan (but continued in Taiwan), whereas the forest cooperation started a couple of decades later. Also some initiatives were made by the University of Helsinki to introduce new plant production technology to China in the 1980s (Dr Pentti K. Räsänen, pers. comm.).

Metsähallitus was in charge of the preparations of the Finnish—Chinese forest cooperation and exchange of delegations already in the late 1970s. The Memorandum of Understanding was signed in 1980 by Director-General P.W. Jokinen of Metsähallitus and Director General Liu from the Forest Ministry of the Peoples' Republic of China. When the Memorandum of Understanding was signed, the responsibility for the cooperation was given to the Ministry of the Agriculture and Forestry.

The biodiversity cooperation between Metsähallitus and the FDH originated from the Finnish—Chinese project on the seed and plant production, which was part of the Finnish—Chinese Scientific and Technical Cooperation Programme, which was managed by the Ministry of the Trade and Industry in Finland (Mr Esko Jaakkola, letter of 30 August 2007 and pers. comm.). The project secretary, Ms Marjatta Hytönen, contacted the Ministry of the Environment after visiting the Hunan Province. She was asking the Ministry to answer to the cooperation request in the field of nature conserva-



The forestry cooperation agreement between the People's Republic of China and Finland being negotiated by P.W. Jokinen, DG of Metsähallitus in the late 1970s. PHOTO: LIISA NIKULA.

tion and wildlife management proposed by the Chinese (project proposal of 2 December 1987). The Chinese Embassy in Helsinki had also contacted the Ministry of the Environment. The Chinese had also contacted Mr Darrell Sequeira of the University of Helsinki. Mr Esko Jaakkola, who was in charge of the international nature conservation cooperation at the Ministry, invited a meeting on 12 May 1989 at the Ministry of the Environment, with Ms Sofia Grodzinska-Klemetti, Ms Marjatta Hytönen, Ms Anneli Leivo of Metsähallitus, Ms Eva Mikkolanniemi, Mr Darrell Sequeira, and Mr Fan Mingyi of the Chinese Embassy as participants (invitation of 8 May 1989). As a result, Mr Esko Jaakkola, Mr Darrell Sequeira, and Dr Matti Helminen of Metsähallitus prepared a project application of 125, 860 Finnish marks on biodiversity

conservation and management in the Hunan Province to the Ministry of Trade and Industry (application of 4 December 1989, signed by Mr Olli Paasivirta). The application was accepted on 26 January 1990 (decision signed by Mr Markku Mäkinen).

The project included several excursions from Finland to China (see pages 30–36). Mr Esko Jaakkola tried to find funding for the projects from the Ministry of Trade and Industry, which had indicated that there would be funding available, but the policies had changed, and the projects and their costs were considered to belong entirely to the Ministry of the Environment. However, the idea was kept alive, and when new financing instruments became available from the European Union, the work was continued by Metsähallitus.



The Cooperation Agreement was signed on 4 August 1995 at Metsähallitus Headquarters in Vantaa, Finland. The meeting was hosted by Mr Pentti Takala, DG (third from the right). РНОТО: FDH.

During the excursions in 1987-1994, it was noticed that both Metsähallitus and the FDH had similar basic objectives as regards the preservation of biodiversity, by developing the system and management of protected areas, and by the sustainable use of renewable natural resources, especially forests and wetlands (Dr Matti Helminen, pers. comm.). It was considered desirable to deepen the relationship and to expand the cooperation between Parties. This resulted in the signing of the agreement concerning the cooperation between the protected area systems of Hunan and Finland in August 1995 and an endorsement of a joint work programme with concrete plans (Väisänen 1995, Below 1996). The cooperation was supported financially by the European Commission in 1995–1998 (Brüggemann 1999). Since then, external funding has been actively sought, but in practice the Parties have financed the cooperation by themselves.

The official cooperation programme between Metsähallitus and the FDH started in 1995 with the financial support of the European Union and through the Partnership and Exchange Programme of the EUROPARC Federation. When the EU funding ceased, the cooperation continued on a bilateral basis from year 2000. Both Parties considered that the cooperation was benefiting both organisations. After that, the emphasis was put on commercial activities, because Metsähallitus is a state enterprise and does not have any funding instruments of its own for non-commercial bilateral projects. However, the commercial cooperation between Metsähallitus and the FDH did not reach any tangible results, whereas the joint work on biodiversity conservation has still continued, mainly through exchange of information and personnel, and occasional meetings and study tours.

Cooperation Agreement

The National Environmental Protection Agency of the People's Republic of China and the Ministry of the Environment of Finland had agreed, in a Memorandum of Understanding of 6 July 1995, to strengthen and develop their cooperation in the field of environmental protection and mutually identified conservation of biodiversity, as one of the high priorities of cooperation.



The 1st Cooperation Committee Meeting was held in Changsha, Hunan in March 1996.

The participants included Dr Matti Helminen and Mr Liu Yongshou, DG, FDH, Mr Ge Handong, Deputy DG and Mr Gui Xiaojie, Deputy Director of Wildlife Protection Bureau. PHOTO: FDH.



The 3rd Cooperation Meeting took place in Changsha, Hunan in May 1998. The participants included Mr Björn Finne, Dr Rauno Väisänen, Mr Jens Brüggemann, Mr Ge Handong and Mr Gui Xiaojie. PHOTO: FDH.

"The Agreement between the Forestry Department of Hunan Province, people's Republic of China, and the Forest and Park Service (former name of Metsähallitus), Finland, concerning the cooperation between protected area systems of Hunan Province, People's Republic of China, and Finland" was signed on 4 August 1995 in Vantaa, Finland by Director-General Pentti Takala and Deputy Director-General Ge Handong. Mr Ge Handong, Dr Gui Xiaojie, Dr Rauno Väisänen and Mr Tuomo Kotimäki were nominated as members to the first Coordinating Committee of the Agreement. Mr Kotimäki was later replaced by Mr Björn Finne.

The Federation of Nature and National Parks of Europe (FNNPE, i.e. the present EUROPARC Federation) had begun "a Partnership and Exchange Programme for Long-term Cooperation between Protected Areas in Europe, Asia and Latin America". It was encouraged by the excellent results achieved in the cooperation between the institutions that manage the protected areas of different countries. The Finnish—Hunanese Agreement was accepted to be included into the Partnership and Exchange Programme of the EUROPARC Federation at an early stage. Previously only one other agreement, i.e. between Catalonian and Costa Rican parks, had been signed, but later altogether 15 agreements were made.

At the same time, a work programme for three years was accepted by Metsähallitus and the FDH. It defined the aims and formed the ground for the cooperation for the forthcoming years.

The revised and updated Framework Agreement focused on nature conservation and was signed on 27 November 2002 in Changsha.

Goals of the Cooperation

The 1995 Agreement states that Parties commit themselves to:

- appraise and protect the natural and cultural values preserved in the systems of the protected areas which the Parties manage;
- respect and develop the different conservation, research and monitoring, as well as education and training functions of protected areas:
- promote the development of strategies and action plans to maintain and restore the biodiversity both in protected areas and outside them:
- strengthen and enhance the mutual cooperation in scientific research and monitoring, technical and planning work, environmental education programmes, extension and training, and in management of nature reserves; and
- solve technical, linguistic and cultural problems in cooperation by training the personnel for international cooperation in both institutions.

The Parties should also promote the flow of information between them with the objective of making the knowledge and exchange of experience more profound.

The Finnish–Hunanese Biodiversity Cooperation from a Wider Perspective

The cooperation agreement between Metsähallitus and the FDH was signed in 1995, in the same year when Finland joined the European Union (EU). The membership made several new sources of funding available for P&WF and enhanced both domestic and international partnerships. The EUROPARC Partnership and Exchange Programme was one of the first projects of P&WF financed by the EU, and it paved the way to the development of the P&WF project portfolio. For the Hunan Province, Metsähallitus and

Finland were then a gateway to the EU. In many cases Metsähallitus helped the FDH in arranging meetings with other European organisations. The partnership had a wider meaning for the European—Chinese relationships in the fields of natural conservation and forestry, and sometimes beyond. However, with the exception of nature conservation, concrete results from the joint business ideas and plans remained quite modest. The reasons for this were likely the lack of strategic foresight and the overesti-

mation of economic risks in relation to opportunities.

During the two-decade-long Finnish—Hunanese cooperation, the Hunan Province established relationships not only with various Finnish sectors, like forestry, research, enterprises etc, but also with EU countries and international organisations through Finland (as was concluded by a the FDH review on 17 June 2004). The cooperation partners, besides the Finnish ones, including the EUROPARC Federation, IUCN, GEF, WWF, and the



Joint bird inventories were carried out on East Dongting Lake in 1996. PHOTO: ANTTI BELOW.



Young Chinese nature tourist at Finnish Nature Centre Haltia in Espoo in 2014.
PHOTO: METSÄHALLITUS/AURA PIHA.

Forestry Commission. The Finnish—Hunanese cooperation advanced the opening-to-the-outside progress of the Hunan Province. The partnership promoted the integration of the Hunanese forestry with global development, and opened a gate to the European Union. Moreover, it has improved the image of the Hunan Province at the international stage. The Provincial Government paid a lot of attention to the cooperation. Finally, the partnership has served as an effective communication channel to timely-collected information on international development trends.

During the same period, the Finnish industries, such as the ITC, forest and paper industries, became significantly more international as regards their markets, ownership and production, with a lot of activities in China. However, their commercial activities in China were an independent process, and it did not utilise the experiences from the Finnish—Hunanese partnership.

China has become recently a major global tourism destination, though the vast majority of the visitors are Chinese. Some protected areas, like Zhangjiajie, which received only hundreds or, at most, thousands of visitors per year twenty years ago, are nowadays catering up to tens of millions of tourists. Likewise, there has been a huge increase in the numbers of Chinese tourists in Europe, also visiting Finland and its protected areas, especially in Lapland. However, this is still an underdeveloped field of the Chinese-Finnish cooperation, since most Chinese are either stop-over visitors at the airport or just visit Helsinki city, partly owing to the lack of information and services in Chinese. The new Finnish Nature Centre Haltia, opened in June 2013 in Nuuksio National Park, near Helsinki and the airport, is expected to provide better opportunities for Chinese visitors to get information on the Finnish protected areas and their services.

The Finnish–Hunanese partnership has put forward many ideas on nature conservation. These include those of the Programme of Work on Protected Areas (PoWPA) of the Convention on Biological Diversity (CBD), e.g. transfer of technology, such as inventory and survey techniques and management tools and practices of protected areas. P&WF and the FDH jointly compiled the Biodiversity Action Plan for the Hunan Province with the associated seminars and meetings raising awareness. The results are of significant importance in capacity building and implementing the aims of the CBD. The cooperation has also promoted the implementation of the aims of the Ramsar Convention on Wetlands, especially as regards the inventories, conservation and restoration of the East Dongting Lake in the Hunan Province.

The present experience shows that long-term institutional cooperation is a feasible option to promote sustainable development (see also Väisänen 2003). However, it is dependent on the availability of funding. Even small sums of external funding can be sufficient to encourage and maintain the cooperation. P&WF has similar experiences on the crucial importance of the minor, but reliable funding for the Finnish-Russian (Silfverberg & Alhojärvi 2004), Finnish-Estonian (Külvik 2001), and Finnish-Latvian cooperation. In the case of the Finnish-Russian cooperation the funding has also successfully paved road to large joint projects, when external funding sources have appeared. In conclusion, there is a clear need to develop smallscale funding instruments for institutional cooperation, both in Finland and elsewhere, in order to optimally utilise globally the huge capacity of national institutions, like parks agencies and park services.



Promoting Biodiversity Conservation: Sharing Knowledge and Technology

Visitor Centres and Environmental Education

Aim: The idea was to design and plan a visitor centre in Changsha in order to promote public awareness, which was identified as a priority task in the Hunan Province. The visitor centre was to provide environmental education both to the personnel of the FDH and the public at large.

Description: The means of cooperation included technical advice, financial support and personnel exchange. After the Chinese experts had visited Finland in June 1998, and discussed the technical matters with the Finnish experts, the FDH set up a specific working group and carried out preparatory work. Ms Arja Vasama, Ms Eeva Heikkinen and Mr Hannu Sipinen participated in the planning and implementation of the exhibitions of the visitor centre called "Hunan Forest and Wetland Biodiversity Education Centre".

The base of the visitor centre was a discarded brewery, which located to the North-West of Tianjiling National Forest Park. The main building, with two floors, was about 1,000m². There were also ten large wine jars. The total area of the yard was about 2,000m², with several small buildings. The visitor centre has an exhibition area of 1,000 m². The place was selected on the basis of its easy access, the high visitation rate in the park and the relatively low estimated construction costs. The annual number of visitors in the park was about 300,000.



Parks & Wildlife Finland delegation visited the Finnish section of the exhibition of the visitor centre in March 2015. Photo: FDH.

Results: The cooperation resulted in a proposal on the design of the visitor centre and its exhibitions, and later in the implementation of the approved plan. The planning and implementation were both joint activities of the FDH and Metsähallitus, and the process included the training of staff. Metsähallitus donated 50,000 Finnish marks to the project, 30,000 of which was allocated to the exhibition costs.

The visitor centre gives general information on the biodiversity in the Hunan Province, including geomorphology and natural resources, as well as flora and fauna and protected areas. It

has special sections on mountain forests, wetlands, biodiversity conservation, and the use of different resources of forests. The exhibition includes a specific Finnish hall, a section which was financed by Metsähallitus.

The idea of the Finnish section in the exhibition was to give general information on Finland, and some of its most scenic landscapes, conservation activities and recreational traditions. It included a general map of Finland and its protected areas, facts about Finland and Metsähallitus, posters on national parks, a typical Finnish outdoor exhibition stand, a typical Finnish campfire site

and two stuffed reindeer with northern fell landscape and Finnish lake-land landscape. It also included information on the conservation activities on the Lesser White-fronted Goose (*Branta leucopsis*), an endangered bird species occurring in both Finland and Hunan. Metsähallitus donated CD-ROMs, publications and brochures to the visitor centre. The EUROPARC Federation provided some material, posters and publications, which were included in the European section of the visitor centre.

The Hunan Forest and Wetland Biodiversity Education Centre was opened in September 1999. Mr Pentti Takala, Director-General of Metsähallitus, gave the opening speech as an honorary guest. The opening of the visitor centre was also noticed at the national level in China (e.g. the congratulating telegram from the Forest Ministry on 25 September 1997). The biggest Finnish newspaper Helsingin Sanomat published a long article on the Changsha visitor centre and the Finnish—Hunanese cooperation in October 1998 (Sjöberg 1998).

Assessment: The Hunan Forest and Wetland Biodiversity Education Centre was the first of its kind in the whole Peoples' Republic of China (review by the FDH on 17 June 2004). Thus, it has facilitated and accelerated the development of the visitor centre concept in China. The visitor centre has attracted hundreds of thousands visitors from within and outside the Hunan Province. The reindeer have been very popular, especially among children, thanks to Santa Claus. There has been a lot of positive Chinese feedback on the design, rational and science-based display, and impressive exhibition of the centre. The leaders from the State Forest Administration and Provincial Government have visited the centre. The establishment of this centre introduced

new ideas and significantly promoted the public awareness and education measures on wildlife conservation in the Hunan Province. It has served as an educational centre for the huge staff of the FDH. Furthermore, the centre has played a role of a new showcase, through which both ordinary visitors and professionals get to know Finland, especially the protected areas and forestry policies.

Educational Courses and Study Tours

Aim: The experience indicates that the success or failure in nature conservation and forestry activities depends, to a great extent, on the professional quality and management capability of the personnel. From the very beginning of the cooperation, it was clear that one of the biggest challenges was the urgent need of capacity building in the Hunan Province, in order to improve environmental awareness, improve management techniques and to introduce modern methods of nature conservation and forestry.

Description: The means of cooperation comprised the training of personnel, and especially, capacity building in international cooperation, scientific research and inventories in protected areas.

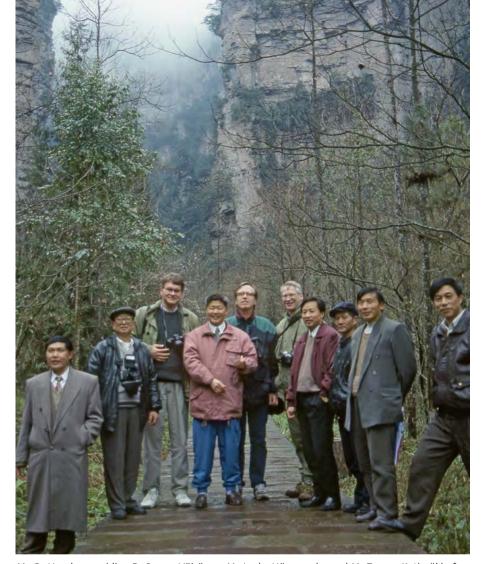
Results: The cooperation has included the exchanges of more than 70 persons, including many key officials of both Parties. The cooperation has covered many different aspects of protected area management, but also scientific cooperation and some business fields related to forestry, tourism, plant and seed production, and others. More than of 30 Hunanese persons visited in Finland and hundreds were then trained in Hunan. As a result, the expertise of the managers

and technicians of the Hunan Province was updated and improved. The latest knowledge and international experience in the management of protected areas were introduced, which broadened the horizon and thinking. Many of people who participated in the study tours and training courses are now key players in the FDH and elsewhere.

Assessment: The training events were considered very useful, not only for those involved, but for the whole the FDH, and even the forestry system in a wider sense. The training also promoted skills in the English language of both the FDH and Metsähallitus personnel. For example, the trained staffs from the Hupingshan and East Dongting Lake Nature Reserves made an important species monitoring plan and set up a database to monitor the species by using the experience and knowledge from overseas. They published scientific reports in English and set up research stations in their nature reserves. The FDH gave positive feedback on the serious work attitude, pragmatic and effective work style and good cooperation of the Finnish experts. The professional skills of the FDH staff were gradually enhanced by what they constantly saw and heard when working together.

Biodiversity Action Plan for the Hunan Province

Aim: The aim was to prepare a provincial Biodiversity Action Plan (BAP) for the Hunan Province in order to make the national strategies more concrete, more tailor-made for the local conditions and better-known to the provincial stakeholders and the FDH personnel, and thus to speed up the implementation of the national strategies and the CBD at the provincial level.



Mr Ge Handong guiding Dr Rauno Väisänen, Mr Jouko Högmander and Mr Tuomo Kotimäki of Metsähallitus delegation in Zhangjiajie National Forest Park in 1996. РНОТО: JOUKO HÖGMANDER.

Description: The project was initiated during the Partnership and Exchange Programme with the funding from the European Union. Dr Gui Xiaojie gathered a huge amount of information on biodiversity in Hunan and compiled a draft BAP together with Mr Jouko Högmander of the Metsähallitus.

The FDH organised an important seminar on biodiversity in Changsha in April 1997 with three Finnish experts, Mr Jouko Högmander, Mr Erkki Virolainen and Mr Hannu Jännes. Approximately 70

representatives from provincial institutions of higher education, the Agency for Protection of the Environment and the Department of Agriculture, as well as the local FDH offices, were invited. At the outset of the seminar, more than one hundred participants were present, including several representatives of the Chinese media. Some high-level officials attended the seminar, including a member of the People's Congress of China, Mr Wang Yonga, who was present during the whole seminar. Two Directors

of the Ministry of Forestry from Beijing, Mr Chen Jianwein and Mr Yan Xun, also attended and expresses their support to the Finnish—Hunanese cooperation. They pointed out that Hunan is the first among the provinces to carry out a BAP and the first to do it with a foreign collaborative partner (Fukien Province was about to compile their BAP at the same time).

At the seminar, two working groups, one comprising of administrative officials and another of scientists, proceeded through the draft BAP. Professor Chen Jaikou of Wuhan University spoke about the wetlands found in the central part of the Yangtse River and the expected effects of the Three Gorges Dam. Mr Xiong Siqing of the FDH told about the biodiversity of Badagongshan. Assistant Professor Chen Bin of the Agricultural College of Hunan gave a paper on the preservation of domestic animals and Lector Yang Daode of Central South Forest University on threatened animal species. Of the Finnish experts, Mr Jouko Högmander clarified the concepts of biodiversity and ecotourism, Mr Erkki Virolainen explained the management planning system and tools in protected areas, and Mr Hannu Jännes told about the modern ornithological methods in bird inventories.

The draft BAP was later finalised on the basis of the comments received by Mr Jouko Högmander and Dr Gui Xiaojie.

Results: Since there was no more financial support available from the Partnership & Exchange Programme in 1999, when the manuscript was ready, Metsähallitus decided to pay the editing costs and the printing costs of the English version. The BAP was published in English in 2000 (Högmander & Gui 2000).

Simultaneously and largely based on the BAP, the Parties prepared together a

European Union grant application titled "Conservation of Subtropical Forest Biodiversity in Hunan, Peoples' Republic of China" in 1997. Since it did not get funding from the European Commission, a revised application titled "Subtropical Timber and Biodiversity Conservation Project in Hunan, Peoples' Republic of China" was prepared and finalised by Mr Pertti Kanon of Metsähallitus Consulting in 2001. The FDH applied funding from the European Union (EC Budget Line B 7-6201), with Metsähallitus as partner and Metsähallitus Consulting as subcontractor. Unfortunately, the planned large-scale project, with a budget of about 2 million euros, never received any funding from the EU in spite of the very positive comments and assessments.

Assessment: The Hunan BAP was jointly formulated by the FDH and Metsähallitus, and it is the first of its kind in the whole of China. It gathered and summarised a huge amount of previously

scattered information, including unpublished information and information only published in Chinese publications, poorly known outside China.

The provincial BAP was clearly linked with the national priorities. "The National Wildlife Conservation and Nature Reserve Development Programme" included habitat improvements and restoration of forests and wetlands, capacity building and protection of endangered species in the Hunan Province. The endangered species included in the national programme were the South China Tiger (Panthera tigris amoyensis), the Dwarf Musk Deer (Moschus berezovskii), the Cabot's Tragopan (Tragopan caboti), the Elliot's Pheasant (Syrmaticus ellioti), the Siberian Crane (Leucogeranus leucogeranus) and some orchids.

In the BAP, the protection strategy, goals and objectives, and detailed activities were proposed for the conservation of the biodiversity resources in the Hunan Province. The BAP served as guidance

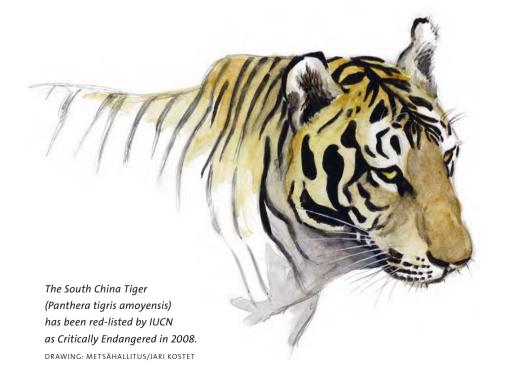
to biodiversity conservation work and resulted in rapid progress both in public awareness and in conservation projects in the province.

Indeed, the BAP helped to improve the success of Hunanese conservation project applications (as concluded in the review of the cooperation by the FDH on 17 June 2004). For instance, the BAP has provided a solid base for the preparation of two major international projects to Hunan: the nation-wide project of "Sustainable" Forestry Development" funded by the World Bank and the project on "Wetland Biodiversity Conservation and Sustainable Use of the Dongting Lake" funded by the GEF. The Action Plan has also played a significant role in other activities of improving the conservation of natural forests and wetlands as well as in the development of seed and plant production in Hunan. At the same time, it must be admitted that in spite of the efforts, the status of some endangered species, including the South China Tiger, has alarmingly declined.

Wetland Inventories and Management

Aim: When the Finnish–Hunanese cooperation started, the great conservation value of the Hunanese wetlands was known, but there was a great need for scientific research, inventories and monitoring, especially in the existing and planned protected areas. Thus, wetland inventories and management were selected as one field of joint activities.

Description: The joint activities comprised bird inventories, seminars and training courses to improve the capacity of the FDH personnel. The provincial BAP also included many aspects related to this field of cooperation.





Wetland inventories on the dam walls in East Dongting Lake National Nature Reserve, which is a Ramsar site and China's second largest freshwater lake. PHOTO: ANTTI BELOW.

The Dongting Lake is a fresh-water body receiving water from the Yangtze River and four main rivers in Hunan. It is a water reservoir of great significance to the Yangtze River catchments. The East Dongting Lake is a Ramsar site since 1992. It was also approved as a national nature reserve in 1994. In 1997 and 1998, the South Dongting Lake and the East Dongting Lake were gazetted as provincial nature reserves by the Hunan Provincial Government. All these decisions aim at the conservation of the wetland ecosystem and species, including the Lesser White-fronted Goose, which is an endangered species in Finland, too. In 2002, the South Dongting Lake Nature Reserve and the West Dongting Lake Nature Reserve were added to the Ramsar List of Wetlands of International Importance". The wetland restoration and protection in the Dongting Lake were recognized as a priority project in

the "China National Wetlands Conservation Action Plan" which was promulgated in September 2001.

The ultimate goal is to return the Dongting Lake from its present area of 2,625 km² to the state it used be in the 1950s, covering a total of 4,350 km², by restoring the reclamation fields to wetlands. The measures included the establishment of a new wetland nature reserve, restoration of habitats, control of poaching, biodiversity conservation, and alternative livelihoods to the local communities, such as ecotourism. agroforestry and the sustainable use of wetland resources. There is also a plan to integrate the four existing nature reserves in the Dongting Lake to promote more effective and scientific management.

Results: Finnish experts did bird inventories in the wetlands of the Dongting Lake in January–February 1996. A training

course for Hunanese experts was organised in Finland in May–June 1996. As part of study tours, wetlands were visited also on other occasions.

The elaboration of the Dongting Lake wetland conservation plans was finished by Indufor, which was a subsidiary of Metsähallitus. In November-December 2003, two experts made a field visit to Hunan. After prior discussions with the FDH, the WWF in Changsha and other relevant sectors, the objectives and the scale of the activities were identified. Before the finalizing and submission of the plan, recommendations for modification provided by WWF and the FDH were adopted. The project received 20,000 euros of financial aid from WWF. The expertise and lessons learned from BAP and Finland were reflected in the plan.

The restoration plan for Qinshan Polder Wetland in the West Dongting Lake was formulated by Finnish experts, in which modern European wetland restoration and conservation techniques were introduced. The restoration plan promotes wetland rehabilitation, balanced treatment between conservation and utilization, restoration of ecology and water conservation construction. The plan formed a solid foundation for seeking financial support from the EU (review by the FDH on 17 June 2004).

Finnish experts carried out bird inventories also in other protected areas. Mr Jouko Högmander, Mr Erkki Virolainen and Mr Heikki Jännes visited Zhangjiajie National Forest Park in April 1997. They discerned 60 bird species within the park, including 27 new species to the park. Previously, there were records of only 70 bird species from that area. They visited also Mangshan Nature

Reserve in Southern Hunan, where a large snake species new to science had been found and described in 1989. According to a list made by ornithologists from Hong Kong, 150 bird species were known from Mangshan. The expert group found in April 1997 as many as 45 species, including 2 species new to the area. The avifauna was quite prolific. Observations were made on the threats to the protected areas and biodiversity, including loggings within the parks. Connections were established with the scientists at the Central Southern China University.

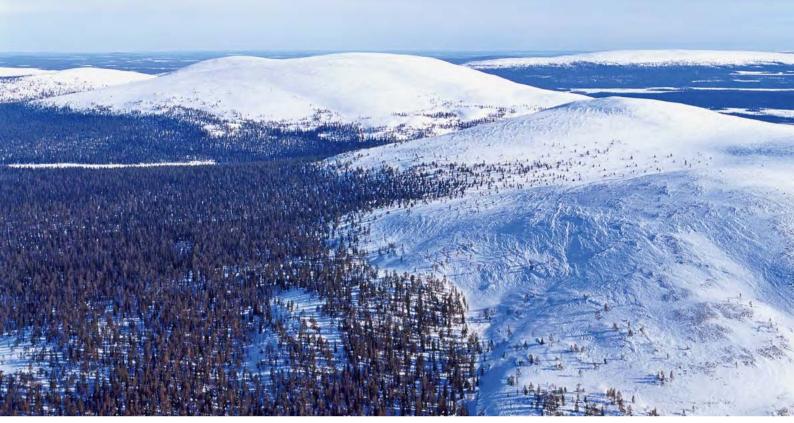
Assessment: Although the inventories were carried out during short visits, they demonstrated the efficiency of the modern methods and the great

ornithological value of the places visited. The results motivated the experts to participate in the training courses and to start inventories in protected areas.

The cooperation also contributed to the wetland management policies and practices in the Hunan Province by promoting wetland rehabilitation and habitat restoration, and by demonstrating a balanced approach to nature conservation and the sustainable use of natural resources. It laid a foundation for seeking further external partners and funding for wetland management.

▼ Established in 1982, Zhangjiajie is the first national forest park in China. PHOTO: JOUKO HÖGMANDER.





Pallas—Ounastunturi, one of Finland's oldest national parks, established in 1938, started personnel exchange with Zhangjiajie National Forest Park in 2002. Photo: Metsähallitus/Lentokuva vallas oy.

Twin Parks

Aim: The aim was to improve the skills for international cooperation among the practitioners at the park level and to benchmark, to learn from each other, about the protected area management, e.g. visitor management.

Description: The activities were based on a twin parks arrangement between Pallas—Ounastunturi National Park and Zhangjiajie National Forest Park. The parks signed an agreement on personnel exchange in 2002. The program was based on visits lasting from one to six months. Zhangjiajie covers 9,563 km². It was established in 1982 as the first national forest park in China. It is famous for its rare quartzite sandstone peak landforms. It is one of the most visited

protected areas in the world, with almost 20 million visitors per year. Together with Tianzi Mountain Nature Reserve Zone and Suoxi Valley Nature Reserve Zone it forms the Wulingyun Scenic Area, which was added to the UNESCO World Heritage List in 1992. The Finnish counterpart, Pallas—Ounastunturi National Park, was established among the first Finnish national parks in 1938 and it is the most visited national park in Finland with almost 0.5 million visitors per year. It includes a long chain of Lappish fells with several skiing resorts close to it.

Results: In addition to the park level agreement, the concrete cooperation was relatively modest partly due to other duties associated with the changes in the organisation and legislation in Finland. The Pallas—Ounastunturi National Park

was extended with 420 km² to 1,020 km² and renamed Pallas—Yllästunturi National Park. Two Zhangjiajie staff members visited Pallas—Yllästunturi National Park and other sites Lapland in summer 2006. Two Pallas—Yllästunturi staff members visited Zhangjiajie National Forest Park in spring 2007.

Assessment: P&WF has a long experience of transboundary cooperation of protected areas with its neighbours Russia, Norway and Sweden. The work is based on the concept of twin parks, lying adjacent to each other on the different sides of the national border, but sharing the same natural features. Several new methods and tools have been recently developed to advance the cooperation in a more systematic way. The EUROPARC Federation has a useful framework

"Using Nature's Own Design", which lists the key elements of cooperation. Similar frameworks can be used when developing the cooperation of distantly located protected areas. The twin parks in other countries provide important benchmarking and learning opportunities. The long-term cooperation helps to build up mutual trust and to facilitate the learning process. There is a lot of potential in the twin park cooperation, but also limitations due to economic constraints and limited linguistic skills of the staff members. Successful visits require careful planning in advance.

European Dimension: EUROPARC Partnership & Exchange Programme

Aim: The project addressed three major cooperation priorities on operations to promote tropical forests, namely:

- conservation of primary tropical forests;
- sustainable management of tropical forests: and
- capacity building to address the needs for training schemes.

Description: With the purpose of strengthening the capacity to manage protected areas in developing countries, the Federation of Nature and National Parks of Europe (the EUROPARC Federation) implemented between 1994 and 1998 the "Partnership and Exchange Programme: Technical Cooperation between Protected Areas in Europe, Asia and Latin America" with a financial contribution of the European Commission of 2,087,000 ECU (European Currency Unit, precursor to the euro).

Metsähallitus and the FDH were the second partnership signed as part of the Partnership & Exchange Programme.

As regards the Partnership & Exchange Programme, the Finnish—Hunanese cooperation was unique as it represented a partnership between two protected area systems instead of that between two individual parks.

Results: The project fully met its objectives and, in fact, exceeded them (Brüggemann 1999):

As many as 15 long-term partnership agreements were signed between European protected areas authorities and their counterparts in Asia and Latin America:

- Asian and Latin American protected areas sent 198 staff members for study visits and training on the job to their European partner parks and hosted 192 Europeans for expert advice and training;
- A total of 17 training seminars were organised, mainly in Europe. The seminars were tailor-made for 262 Asian and Latin American park managers and technical staff members and involved 86 European park experts; and
- A set of seminar reports, guidelines and information leaflets was published, and a portable project exhibition was displayed in many European countries.

The large number of project activities was a result of the commitment and contribution of European, Asian and Latin American parks. The parks provided accommodation, meals and local transport for visitors from their partner areas, so that external funds were required only for the international airfare. The total staff time the European parks provided for the expertise and training was estimated at 183 person months.

Despite the very successful evaluation workshop held in Lombardy, Italy, 27 September – 1 October 1998, on the Partnership and Exchange Programme,

the European Commission decided in December 1998 against funding the proposed follow-up project on Conservation through Community Participation. The Partnership & Exchange Programme came to an end on 31 December 1998. The European Commission recognized the Partnership & Exchange Programme, but, for internal reasons, they did not accept EUROPARC's proposal to extend funding of the Programme by one year and to support a new project on Conservation through Community Participation (Aitken Clark & Jens Brüggemann, letter of 1 June 1999).

Assessment: The whole Partnership & Exchange Programme was an important initiative in implementing the CBD. As to the Finnish-Hunanese cooperation. the partners' own assessment of the project results was overwhelmingly positive as regards partnership benefits, capacity-building impact, the relevance of practical cooperation between protected areas and the support received from the Partnership & Exchange Programme. As the only programme cooperating in the field of nature protection in Hunan Province and even in the whole of China, the Partnership and Exchange Programme became an example of successful international successful cooperation for the State Forestry Administration (Ministry of Forestry) and the Provincial Government of Hunan. The concrete results of the programme included the Provincial Biodiversity Action Plan (BAP) and Management and Construction Standards for Protected Areas, Both the FDH and Metsähallitus were devoted to continuing their cooperation, wished to be involved in a wider programme with training opportunities, and expected continued support from the European Commission.

The importance of EUROPARC's role in coordinating and organising the Partnership & Exchange Programme with lean administration was reinforced to assume a facilitating role at the European level. The staff exchange was considered an important form of informal training. The effectiveness of the staff exchange depends on participatory problem identification, expertise availability, cultural sensitivity, advance planning and follow-up. In the case of the Finnish-Hunanese partnership, the effectiveness and sustainability significantly benefited from the annual meetings of the formal bilateral Cooperation Committee and from the multi-annual work programme. The cost-sharing arrangement was also an important element of the sustainability of the partnership.

The partnerships had a catalytic effect and they yielded important additional benefits. Protected areas received greater recognition and their status has risen. The Programme could have become a very valuable instrument of international cooperation for the European Union and bilateral development agencies. The partnership arrangements would have allowed for the continued transfer of technology, practical experiences and know-how between the EU and Asian and Latin American protected areas – at a very low cost. Unfortunately, for unknown reasons, these opportunities were never used by the European Commission, in spite of the several highquality applications sent to it. The evaluation of the programme recommended the partner parks to maintain direct

communication with their counterparts before and after the cooperation activities and to communicate the benefits of the partnership to the authorities and the public at large, as was done in the case of the Finnish—Hunanese partnership.

The financial aid played a positive role in relieving the pressing situation caused by the shortage of funds, needed for the forestry development. At the same time, new ideas, concepts, expertise, experiences and methodologies were introduced, which helped to improve the work efficiency and to catch up with the latest technology.

▼ Chinese hospitality at the 3rd Cooperation

Meeting in Hunan in May 1998. PHOTO: JENS

BRÜGGEMANN.





Promoting Economic Welfare: Emerging Business Opportunities

Seed and Plant Production

Aim: The demand of seeds and seedlings has greatly increased in China owing to the implementation of huge forestry projects. The aim of the joint activities was to improve the forest seed and seedling production and availability in the Hunan Province.

Description: The increasing demand of seed and seedlings created a good opportunity for technical innovations in seed collection, processing, inspection and preservation techniques. It was agreed that the Parties will carry out a joint feasibility study on seed and plant production.

The joint pre-feasibility study "Hunan Provincial Forestry Seed and Seedling Demonstration Base Project" was conducted by Mr Pentti Kanon of Metsähallitus Consulting. The report was delivered to the Ministry of the Agriculture and Forestry in Finland in the beginning of 2001.

Results: In 2003, the seedling procurement contract, worth 200,000 euros, between the Hunan Seeds and Seedling Reproduction Exemplary Centre and Lannen Plant Systems was signed. The contract had two parts: the first one was implemented, where as the second one, worth 147,900 euros, was not implemented.

The high-quality seedling reproduction equipment and facilities, together with production and management expertise, were introduced for the Hunan Seeds and Seedling Reproduction Exemplary Centre.

Three experts from Finland, including Mr Ilkka Valli and Mr Juha Järvenpää, worked in the Centre to install the equipment. At the same time, training was given to the personnel of the FDH.

Lannen Plant Systems merged with the Swedish company BCC Ab (Björkemar Construction and Consulting Ab) in April 2005. It was planned that the cooperation would continue in spite of the changes. It was agreed that the cooperation should be extended to include the Finnish Forest Research Institute.

Assessment: Not only was the mechanization of the production realized, the productivity enhanced, and the labour intensity decreased, but also the quality and survival rate of seedlings improved in the FDH. The introduction of both the whole system and the key technology greatly increased the application of science and technology in the seedling reproduction base of the Hunan Province (review by the FDH on 17 June 2004). The application of the seedling production line may have boosted the afforestation activities in the Hunan Province. However, the production line has not been in continuous use, partly owing to its high capacity compared to the needs and partly to some technical matters.

While the cooperation resulted in successful business operations, it seems obvious that Metsähallitus could not fully utilise the business opportunities available during the years of partnership. Indufor and Lannen Plant Systems managed to do profitable business, whereas Metsähallitus remained as a facilitator.

Ecotourism

Aim: The Parties noticed the increase in the numbers of Finnish tourists in China and Chinese tourists in Finland. Thus, there is an opportunity to market the protected areas and to find new business opportunities in ecotourism. Here the term ecotourism is used in the general sense of nature-oriented and ecologically responsible tourism.

Description: Protected areas are the basic assets for ecotourism and for sustainable development in general. Ecotourism can be developed in the parks with certain restrictions. The protected areas are centres of institutional strength and excellence and can act as hubs for tourism development. When the parks have a sufficient number of staff, good infrastructure and services, they in turn boost up the development of economically and socially sustainable ecotourism. There are also opportunities to develop ecotourism outside protected areas. This is the only option, when the forms of ecotourism are not compatible with the legislation of the protected areas. In addition to protected areas, both Metsähallitus and the FDH have large forest areas which are not protected.

Results: The cooperation on ecotourism was started, during the meetings of the Coordinating Committee and its field trips, by discussions and presentations on relevant topics, such as protected area categories, zonation, infrastructure, interpretation, legislation, and management planning. The Parties signed a

framework agreement on ecotourism marketing cooperation on 17 September 2002. Metsähallitus had a business branch called the Wild North specialising in ecotourism, including fishing and hunting trips.

The exchange of information on tourism products, services and costs were carried out between the Hunan Forest Tourism Agency and the Wild North of Metsähallitus. The Wild North was able to offer both nature-based tourism and technical study tours for professionals on tailor-made tourist products and services. The Wild North was seeking a third party to promote tourism from Finland to the Hunan Province. Metsähallitus sold out the Wild North to a private company Lomarengas in 2013.

For the increasing numbers of Chinese visitors, a new project to develop the services and facilities in the Finnish national parks was launched by the P&WF in 2014. The pilot areas include Finnish Nature Centre Haltia and Nuuksio National Park in Southern Finland as well as Oulanka, Lemmenjoki and Urho Kekkonen National Parks and Nature Centre Siida in Northern Finland.

Assessment: While there was substantial progress made in capacity building, the Parties were unable to utilise the commercial business opportunities, at least in Finland. This may be due to the lack of specialised expertise. The development of business opportunities might have benefited from a third party with more tour operator kind of expertise. However, the cooperation between the FDH and the P&WF seems again very promising, taking into account the global growth in ecotourism. The Chinese people are more and more interested in the Chinese Forest National Parks and activities therein, as shown by the rocketing numbers of visitors to the

parks. Thus, the beautiful and peaceful Finnish national parks have, without a doubt, a great potential to attract also a significant portion of the increasing numbers of Chinese tourists during their tours to Europe, if only the service networks do operate and there will also be sufficient services available in the Chinese language. Cooperation with the tour operators and individual enterprises is essential

Forest Management

Aim: Hunan is located in the subtropical region with agreeable temperature and abundant precipitation, which is ideal for fast-growing trees used for making pulp, such as pines, poplars and eucalyptus. The Parties had included forestry as one potential field of cooperation. The main aim was to improve the standards of forestry in the Hunan Province. Later an element on forest certification was added.

Description: The study tours in Finland included visits, not only to the forest areas of Metsähallitus, but also to saw mills and forest industries. Metsähallitus helped the FDH to build up relations with other European forestry organisations. In the summer of 2002, a high-level Hunanese forestry delegation visited Finland and United Kingdom. It was headed by Mr Yang Zhengwu, the Secretary of Provincial Party Commission, and the Director of Standing Commission of Provincial People's Congress. The mission of the delegation was to examine the ecological forestry development trends of developed countries, and to study the experiences and techniques on sustainable forestry development. This was done to help and provide insight into forestry development after China's accession to the WTO and to broaden the channels of cooperation in

forestry development connecting Hunan and the EU. The visit was an expression of the support of the Provincial Government to the Finnish-Hunanese cooperation on forestry and nature conservation. It enforced the domestic measures to develop forestry in the Hunan Province. The visit helped to promote the issuing of the guidelines of Hunan Provincial Government's Decision on Speeding up Forestry. The FDH wanted to purchase wooden cottages to serve as visitor centres in the **Hupingshan National Nature Reserves** and the National Nature Reserve of East Dongting Lake. Metsähallitus has provided the FDH information on Finnish enterprises producing wooden cottages.

Results: The cooperation resulted in increasing awareness of the Finnish forestry sector in Hunan and in building connections, but there have not been any tangible business outcomes. Metsähallitus also provided the FDH with information on and contact addresses of the Finnish Forest Management Associations and the Central Union of Agricultural Producers and Forest Owners.

Assessment: There may still be opportunities for cooperation in the field of forestry. The activities proposed have included the reinforcement of high-level staff exchange, forest certification systems, annual reports of current trends in forestry (timber markets, wood use, forest ownership, protected areas etc.) and information exchange on the cooperation of forest-owners' associations in Finland to boost up the quality of forest management.

► Staff exchange in a friendly atmosphere in Hunan in 2007. PHOTO: FDH.

Timber Processing

Aim: There is an increasing need of timber and wood-based products in the Hunan Province. Thus, the FDH proposed joint activities in the field of timber sales, exchange of research personnel and knowledge in the fields of wood construction technologies and marketing, timber processing techniques and the deresination of timber.

Description: Hunan Yueyang Paper Group Ltd purchased paper production equipment, worth 70 million USD, from Finland. The wood product or raw material imported to Hunan was considered one measure of nature conservation so as to save and maintain the valuable natural forests of the province. The Parties studied the possibilities of selling timber from Finland to Hunan, since there is a lack of high-quality wood in the province. Metsähallitus informed the FHD on the prices of raw material. Nevertheless, no large quantities of high-quality timber were exported from Finland to China owing to the relatively high prices.

The Hunan Forestry Academy planned to carry out intensive processing of timber, especially the Chinese Fir (*Cunninghamia lanceolata* (Lamb.) Hook)

and the Masson Pine (*Pinus massoniana* Lamb) together with the Finnish experts (address by Mr Bai Fangmin on 16 August 2005). The Hunan Province is one of the largest Chinese provinces in terms of plantation resources. The timber reserves of Chinese Fir and pines are 140 million m³ and 130 million m³, respectively. Metsähallitus tried to find appropriate Finnish cooperation partners without results.

Results: In spite of the apparent potential, there were not any tangible business results.



Promoting Scientific Research: Successful Spin-Offs

Population Ecology and Fragmented Landscapes

Aim: The management of the protected area network should be based on best available scientific research. During recent years, studies on population ecology of organisms in fragmented land-scapes have increased understanding of the management of protected areas with the aim of maintaining viable populations of threatened species.

Description: Dr Matti Helminen of Metsähallitus invited Mr Lei Guangchun from the FDH to Finland and assisted him in finding a suitable research team. Mr Lei joined the research group led by Professor Ilkka Hanski of the University of Helsinki.

Results and Assessment: Dr Lei did pioneering work on the metapopulation dynamics of host-parasitoid interactions resulting in his dissertation in 1997 and further studies (Lei 1997, Lei & Hanski 1997, Lei et al 1997). During his stay in Finland, Dr Lei played an active key role in facilitating the cooperation between Metsähallitus and the FDH. Dr Lei also travelled extensively in Finland and gained a thorough knowledge of the Finnish park system with the support of Metsähallitus. Later Dr Lei has worked as Coordinator of the WWF Yangtze River Project, as Senior Expert in the Secretariat of the Ramsar Convention in Switzerland, and recently as Professor and Dean in Beijing Forest University.

► Professor Timo Koponen of the University of Helsinki supervised bryological studies in Hunan Province in the late 1990s. PHOTO: SINIKKA PIIPPO.

Studies on Mosses, Lichens and Fungi

Aim: Systematic study on cryptogams, i.e. mosses, lichens and fungi, was conducted in the Hunan Province by Finnish and Chinese experts with the purpose of increasing scientific information on the biological diversity of the Hunan Province. The idea was to prepare checklists based on the existing material, to carry out field studies and collect new material, identify it and to get new information of the distribution, abundance and habitat requirements of the species. Such information is the foundation of sciencebased management of protected areas. The results contribute to the understanding of the value of forest products and their traditional use.

Description: As a result of the cooperation between the FDH and Metsähallitus,

Mr Rao Pencheng, a staff member of the FDH, started his bryological studies under the supervision of Professor Timo Koponen at the Division of Systematic Biology of the University of Helsinki in 1997. His studies were financed by the Centre for International Mobility CIMO and the Academy of Finland.

The scientific project began, when Professor Timo Koponen was invited to visit the Forest Department of Hunan Province and to carry out bryological field research. He was accompanied by Mr Rao and another student, Ms Sanna Huttunen. During the visit the cooperation between the Forest Department of Hunan Province and the Division of Systematic Biology was discussed, and a Memorandum was agreed upon and signed between the FDH and the Division of Systematic Biology of the University of Helsinki.

The second excursion in 1998 was bryological, and the participants included



Professor Koponen, Ms Huttunen, Mr Rao, and Professor Sinikka Piippo from the Botanical Museum of the University of Helsinki. In 1999 the project was enlarged to include also other cryptogams in addition to bryophytes. The Academy of Finland awarded a three-year scholarship for the project Cryptogam Flora of Hunan Province of China; its Biological Diversity, Significance of Secondary Forest Products, in Forest Pathology, and in Ecotourism.

In 1999, the bryologists Professor Timo Koponen and Professor Sinikka Piippo, the mycologists Professor Marja Härkönen and Dr Tarja Ukkola and the lichenologist Dr Jouko Rikkinen made an excursion to Hunan. The collecting localities were Yuankou (bryologists), and Zhangjiajie and Badagongshan (lichenologists and mycologists).

The duration of the expedition in 2000 was 23 days. The collecting localities were Badagongshan National Nature Reserve and Daweishan Nature Reserve. The research was carried out jointly by the staff and students of the Forest Department of Hunan Province, Badagongshan National Nature Reserve, and the University of Helsinki. Senior Assistant Johannes Enroth and Dr Viivi Virtanen from the University of Helsinki carried out a basic floristic inventory of the research areas. They also compared the floras of natural forests with several kinds of cultivated forests and, more specifically, epiphytic bryophytes on various indigenous or cultivated tree species.

Dr Jouko Rikkinen with Associate
Professor Li-Hong Yan from the Forest
Department of Hunan Province, and
Researcher Kimmo Jääskeläinen from the
University of Helsinki collected lichen
specimens in different types of forests.
Professor Marja Härkönen with Assistant
Research Fellow Zhi-Xin Zeng from the
Forest Department of Hunan Province,

Assistant Tarja Ukkola, and graduate student Tea von Bonsdorff from the University of Helsinki collected mycological specimens for identification in many kinds of natural and cultivated forests. The ethnomycological studies started in 1999 were continued by interviewing local people, making field trips with them to collect mushrooms, and watching how mushrooms were prepared for food or medicinal purposes. Myxomycetes (plasmodial slime moulds) are a nearly totally neglected group of organisms in Hunan; only sixteen species have been reported earlier. The myxomycetes were searched for and collected on rotting wood, different kinds of litter, and on the bark of living trees.

In 2001, the lichenologist Jouko Rikkinen, mycologist Marja Härkönen, and bryologists Johannes Enroth and He Xiao-Lan participated in the expedition. The study areas were Yunshan National Forest Park, consisting of 200 hectares of natural forest, and Xunhuangshan National Forest Park and Nature Reserve.

In addition to the visit by Mr Rao, Mr Peng Chung-Liang visited Helsinki from 5 February to 29 July1999. Mr Cai Shengding and Mr Liu Kaiming visited the Botanical Garden of the University of Helsinki on 14 August 1999. Mr Yan Lihong and Mr Zeng Zhixin visited Helsinki from 17 January to 30 June 2000.

Results and Assessment: During the five-year period from 1997 to 2001, some 23 Finnish experts, together with Chinese ones, jointly conducted investigations on the cryptogams in the Mangshan Mountain, Zhangjiajie, the Badagonshan Mountain, Tayuandong, Yunshan in the Wugang County, and the Hupingshan Mountain. About 20,000 samples of mosses, lichens and fungi were collected. Some species new to science (e.g. Potemkin 2000, Rikkinen 2000) and new

records were found from the collections after species identification.

This was the first time, when such a large-scale and systematic research on the cryptogams was conducted abroad by the University of Helsinki. The university established a field-training base on systematic biology in the Badagongshan Mountain, and shared information and data resulted from the investigation (Härkönen 1999, 2000).

Mr Rao Pencheng became a well-trained expert in bryophytes. He has published several scientific and popularizing papers in addition to his dissertation (e.g. Rao 2000, Rao & Enroth 1999, Rao et al 1997, Huttunen et al. 1999, 2000a, b, c, Koponen et al. 1998, 2000, 2004). He also participated in the meetings between Metsähallitus and the FDH. Later he has worked also in Canada.

Forest Research and Training

Aim: The preliminary plan of forest scientific cooperation aimed at the exchange of English-speaking teachers and experts in teaching and training, and if possible, also students, and to hold academic conferences from time to time to promote academic exchange.

Description: Metsähallitus and the FDH have studied the opportunities and promoted cooperation in forest research and forestry-related training between the Hunan Polytechnic of Environment and Biology, located in Hengyang, South Hunan, and the Viikki Tropical Resources Institute of the University of Helsinki and the Rovaniemi Polytechnic.

Results and Assessment: In spite of the apparent potential, there have so far not been any tangible results.

Meetings and Personnel Exchange

Excursion 1 to the Hunan Province, P.R. China, 17–28 March 1990

Participants: Mr Esko Jaakkola, Chief Inspector, Nature Protection, Ministry of the Environment; Dr Matti Helminen, Bureau Chief, Protected Area Office, Metsähallitus (MH); Mr Darrel Sequeira, Scientist, University of Helsinki.

Field Trips: East Dongting Lake, Wulingyuan Scenic and Historic Interest Area including Zhangjiajie National Forest Park.

Excursion 2 to Finland, 21 August — 4 September 1990

Participants: Mr Zhou Keding, Bureau Chief, Department of Planning, FDH; Mr Huang Changsong, Director, Forestry Bureau of Yueyang City; Mr Song Fazong, Specialist, Forestry Bureau of Yueyang City.

Several project ideas were identified including the bird inventories of the East Dongting Lake, investigations on threatened species, the development of visitor centres and interpretation services, and integrated monitoring.

Field Trips: Oulanka, Seitseminen and Isojärvi National Parks.

Excursion 3 to the Hunan Province, P.R. China, 2–22 November 1994

Participants: Dr *Matti Helminen*, Director, Nature Protection, MH; Mrs *Anja Helminen*; Mr *Chen Liangchang*, Deputy Director, Forest Protection Bureau, FDH; Mr *Lei Guangchun*, University of Helsinki/FDH.

Field Trips: Mangshan, Badagongshan, Zhangjiajie and the East Donting Lake.

► Mr Liu Yongshou, DG, FDH together with Finnish ornithologists Mr Erkki Virolainen and Mr Antti Below in Hunan in 1996. PHOTO: FDH.

Signing of the Agreement on between the Forestry Department of Hunan Province and the Finnish Forest and Park Service (Metsähallitus) in Vantaa, Finland, 4 August 1995

Participants: Mr Ge Handong, Deputy DG, FDH; Mr Gui Xiaojie, Principal Chief Conservator and Biologist, FDH; Mr Pentti Takala, DG, MH; Dr Rauno Väisänen, Director, Nature Protection, MH; Mr Tuomo Kotimäki, Director, Consulting Services, MH; Dr Matti Helminen, Federation of Nature and National Parks of Europe.

Mr Ge, Mr Gui, Dr Väisänen, Mr Kotimäki and Dr Helminen were nominated to the Cooperation Committee. A work plan for the period 1995–1998 was accepted.

Field Trip: Seitseminen National Park

Ornithological Study Tour to the Hunan Province, P.R. China, 12 January – 2 February 1996

Participants: Mr *Erkki Virolainen*, Conservation Biologist, MH; Mr *Antti Below*, Conservation Biologist, MH.

Field Trips: Changsha, the East Dongting Lake and the Three Gorges.

1st Cooperation Meeting in Changsha, P.R. China, 25 March – 2 April 1996

Participants: Dr Rauno Väisänen, Director. Nature Protection, MH; Mr Tuomo Kotimäki, Biodiversity Expert, MH; Mr Jouko Högmander, Superintendent, Archipelago National Park, MH; Mr Liu Yongshou, DG, FDH; Mr Ge Handong, Deputy DG, FDH; Mr Liu Bingshu, Deputy DG, FDH; Mr Zhou Yangsheng, Vice-Chairman, Forestry Association of Hunan; Mr Zhang Zhishan, Foreign Affairs Office of Hunan; Mr Zhang Jian Director, Wildlife Protection Bureau, FDH; Mr Gui Xiaojie, Deputy Director, Wildlife Protection Bureau, FDH; Mr Chen Liangchang, Deputy Director, Foreign Affairs Office, FDH; Mr Zhou Chunbai, Deputy Director, Foreign Affairs, FDH; Mr Liu Kaiming, Deputy Director, State Forest Area Station, FDH; Mr Wang Dianxing, Director, Financial Division, FDH; Mr Liu Xuere, Deputy Director, Financial Division, FDH; Mr Shen Riting, Vice-Chairman of the Congress of the Hunan Province; Dr Matti Helminen, Federation of Nature and National Parks of Europe.

Field Trips: Zhangjiajie National Forest Park and Hupingshan Protected Area.



Training Course in Ornithology in Vantaa, Finland, May-June 1996

Participants: Mr *Xu Mengqi*, FDH; Mr *Lei Gang*, FDH; Ms *Xie Zhihonq*, FDH.

Additional Cooperation Meeting, in Vantaa, Finland, 10–20 June 1996

Participants: Mr Liu Yongshou, DG, the FDH; Mr Zhang Jian, Chief, Wildlife Protection Bureau, FDH; Mr Wang Dianxing, Chief, Financial Division, FDH; Mr Wang Mingxu, Biodiversity Expert, FDH; Mr Pentti Takala, DG, MH; Dr Rauno Väisänen, Director, Nature Protection, MH; Mr Tuomo Kotimäki, Director, Consulting Services, MH; Mr Matti Määttä, Forestry Advisor, Consulting Services, MH.

The aim of the additional meeting was to strengthen the partnership and to integrate the sustainable use of commercial forests with the management of protected areas.

Field Trips: Laajalahti Protected Area,
Kaukopää Paper Mill, Siikalahti Protected
Area, Punkaharju Protected Area, the Finnish
Forest Museum Lusto, Linnansaari National
Park, Lakeland Visitor Centre, Patama Nursery,
Ähtäri Zoo, Seitseminen National Park, Evo
National Hiking Area, Ekenäs Archipelago
National Park, Nuuksio National Park and the
Finnish Science Centre Heureka.

Exchange Visit of the Biodiversity Project to Vantaa, Finland, November 1996

Participant: Mr *Gui Xiaojie*, Deputy Director, Forest and Wildlife Protection Bureau, FDH.

Biodiversity Seminar, Bird Inventories and Training of Staff in Changsha, P.R. China, 13–26 April 1997

Participants: Mr Jouko Högmander, Superintendent, Archipelago National Park, MH; Mr Erkki Virolainen, Conservation Biologist, MH; Mr Hannu Jännes, Conservation Biologist, MH.

The main aim of the trip was to agree on the future preparation of the Action Plan. The Biodiversity Seminar was organised in Changsha from 15 to 17 April. No less than 30 Chinese experts were trained.

Field Trips: Zhangjiajie National Forest Park and Mangshan Nature Reserve.

2nd Cooperation Meeting in Vantaa, Finland, 12–15 May 1997

Participants: Mr Ge Handong, Deputy DG, FDH; Mr Gui Xiajie, Deputy Director, Wildlife Conservation Division, FDH; Mr Tana Miaoshena, Member of the Council of Hunan Provincial Wildlife Conservation Association: Mr Xia Xiaomin. Director. Hunan Provincial Forest Botanical Garden; Mr Pentti Takala, DG, MH; Dr Rauno Väisänen, Director, Nature Protection, MH; Mr Björn Finne, Director, Consulting Services, MH; Mr Tapani Ruotsalainen, Marketing Manager, Consulting Services, MH; Mr Lassi Karivalo, Foreign Affairs Officer, Nature Protection, MH; Mr Jouko Högmander, Superintendent, Archipelago National Park, MH; Mr Olavi Joensuu, Chief, Northern Lapland District for Wilderness Management, MH; Mr Jens Brüggemann, Project Coordinator, Federation of Nature and National Parks of Europe (EUROPARC); Ms Clara van Eijk-Bos, Independent Evaluator, European Commission.

Field Trips: Koilliskaira Visitor Centre of Urho Kekkonen National Park and Northern Lapland Visitor Centre and Sami Museum at Inari.

Staff Exchange Visit on Visitor Centres and Environmental Education in the Hunan Province, P.R. China, 2 September – 6 October 1997

Participants: Ms *Arja Vasama*, Superintendent, Urho Kekkonen National Park, MH; Ms *Eeva Heikkinen*, Manager, Kainuu Visitor Centre, MH; Mr *Tuomo Häyrinen*, Forester, MH.

The aim of the meeting was to exchange experiences on environmental education, interpretation techniques and ecological tourism.

Field Trips: Changsha, Zhangjiajie National Forest Park and Tianzi Mountain Nature Reserve

3rd Cooperation Meeting in Changsha, P.R. China, 4–10 May 1998

Participants: Dr Rauno Väisänen, Director, Nature Protection. MH: Mr Biörn Finne. Director, Consulting Services, MH; Mr Liu Yongshou, DG, FDH; Mr Ge Handong, Deputy Director, FDH: Mr Zhana Jiana, Director, Wildlife Protection Bureau, FDH; Mr Gui Xiaojie, Deputy Director, Forest and Wildlife Protection Bureau, FDH; Mr Zhou Chunhai, Deputy Director, Foreign Affairs, FDH; Mr Wang Dianxing, Director for Finance, FDH; Mr Liu Kaiming, Director, Management of Forest Parks, FDH; Mr Chen Liangchang, Deputy Director, Forest and Wildlife Protection, FDH; Mr Jiang Daguan, Chief Planner, Division of Finance, FDH; Dr Lei Guangchun, Scientist, Beijing University; Mr Jens Brüggemann, Project Coordinator, Federation of Nature and National Parks of Europe (EUROPARC). Field Trips: Changsha Wildlife Centre, Tianjiling National Forest Park, Nanye Arboretum and Yuelu Hill Forest Park.

Expert Exchange Visit to Finland, 1–7 June 1998

Participants: Mr *Jiang Daquan*, Section Chief, Financial Planning Office, FDH; Mr *Zhu Kaiming*, Chief, Wildlife Conservation Centre of Hunan; Mr *Zen Zhimin*, Expert, Tianling National Forest Park, FDH.

Field Trips: Laajalahti Protected Area, Villa Elfvik Visitor Centre and Nature School, Häme Visitor Centre Project, Gnägget Visitor Centre of Ekenäs Archipelago (Tammisaari) National Park, Archipelago National Park, Finnish Science Centre Heureka, Lakeland Visitor Centre and Linnansaari National Park.

Evaluation Workshop in Lombardy, Italy, 27 September – 1 October 1998

Participants: Dr *Rauno Väisänen*, Director, Nature Protection, MH; Mr *Ge Handong*, Deputy DG, the FDH; Dr *Lei Guangchun*, Scientist; Mr *Jens Brüggemann*, Project Coordinator, Federation of Nature and National Parks of Europe (EUROPARC).

The workshop was attended by more than 40 representatives from protected areas in Asia, Latin America and Europe, which were engaged in an inter-continental partnership network, i.e. the Partnership & Exchange Programme which was carried out by the EUROPARC Federation in 1994–1998 with financial support from the European Commission.

Visitor Centre Planning in the Hunan Provincial Forest Botanical Garden, Changsha, P.R. China, 12–21 October 1998

Participants: Ms Arja Vasama, Superintendent, Urho Kekkonen National Park, Natural Heritage Services (NHS), MH: Ms Eeva Heikkinen, Manager, Kainuu Visitor Centre, NHS, MH; Mr Liu-Yunshou, DG, FDH; Mr Ge Handona, Deputy DG, FDH: Mr Zhana Jian, Director, Wildlife Protection Bureau, FDH; Mr Peng Yahui, Chief, Protected Areas, Wildlife Protection Bureau, FDH: Mr Gui Xiaojie, Deputy Director, Forest and Wildlife Protection Bureau, FDH; Mr Xia Xiaoming, Director, Botanical Garden: Ms He Pina. International Affairs Office, Botanical Garden; Mr Zheng Zhixin, Main Scientific Planner of the Visitor Centre; Mr Xiong Yilang, Painter, FDH.

The aim of the visit was to share experiences and to give advice in the planning process of the Changsha Visitor Centre, which was started a year earlier.

Field Trips: Tianjiling National Forest Park, Changsha City Park and Nanyue Nature Reserve on the Hengshan Mountains.

4th Cooperation Meeting in Vantaa, Finland, 9–13 August 1999

Participants: Mr Cai Shengding, Director,
Foreign Affairs Office, FDH; Mr Liu Kaiming,
Director, National Forest Office, FDH; Mr
Hu Yiying, Director, Science and Education
Division, FDH; Mr Gui Xiaojie, Deputy Director,
Forest and Wildlife Protection Bureau, FDH;
Mr Pentti Takala, DG, MH; Dr Rauno Väisänen,

Director, Natural Heritage Services (NHS), MH; Mr Pertti Kanon, Project Manager, Metsähallitus Consulting; Mr Hannu Sipinen, Senior Planning Officer, NHS, MH; Mr Lassi Karivalo, Senior Planning Officer, NHS, MH.

Field Trips: Evo Hiking Area and the Evo Unit of the Häme Polytechnic, Aulanko Protected Area, Häme Visitor Centre Construction Project, Eerikkilä Sport Institute, Puurijärvi-Isosuo National Park, Tuori Horse Estate, Humppila Glassworks, Liesjärvi National Park and Korteniemi Traditional Farm.

The Opening Ceremony of Changsha Visitor Centre and the Opening Ceremony of International Forest Protection Festival, in Changsha and Zhangjiajie, P.R. China, 20–26 September 1999

Participants: Mr Pentti Takala, DG, MH; Mrs Tuula Takala; Dr Rauno Väisänen, Director, NHS, MH; Mrs Anneli Väisänen; Mr Hannu Sipinen, Senior Planning Officer, NHS, MH; Mr Ge Handong, DG, FDH; Mr He Tongxin, Vice-Governor of Hunan Provincial People's Government & Director of Organizing Committee; Mr James Harkness, Country Representative, WWF International.

Mr Hannu Sipinen arrived earlier and actively participated in building up the Finnish exhibition at the Changsha Visitor Centre.
Mr Pentti Takala had an opening speech at the Changsha Visitor Centre. He gave also a speech at the Opening Ceremony of the Forest Protection Festival. Dr Rauno Väisänen gave a presentation Nature Conservation and Ecotourism in Protected Areas at the International Symposium of the Forest Protection Festival.

Field Trips: Changsha Visitor Centre, Zhangjiajie National Forest Park, Huang Long Dong Cave, Shuoxiyu Nature Reserve, Tianzishan Nature Reserve and Helong Park.

5th Cooperation Meeting and Publishing Ceremony of the Biodiversity Action Plan for Hunan, in Changsha, P.R. China, 16–21 August 2000

Participants: Mr Jouko Högmander, Superintendent, NHS, MH: Mr Lassi Karivalo, Senior Planning Officer, NHS, MH; Mr Pertti Kanon, Project Manager, Metsähallitus Consulting; Mr Ge Handong, DG, FDH; Mr Li Dingyi, Deputy DG, FDH; Mr Cai Shengding, Scientific **Technology and International Cooperation** Division, FDH: Mr Gui Xiaoiie, Director, Wildlife Conservation Department, FDH; Mr Zhang Caihue, Director, Seedling Station Hunan, FDH; Mr Wang Guoping, Deputy Director, Wildlife and Plant Protection Division, FDH; Mr Pen Yahui, Nature Management Section of Wildlife and Plant Protection Division. FDH: Ms Xie Zhihong, Nature Management Section of Wildlife and Plant Protection Division, FDH.

After the Publishing Ceremony of the Biodiversity Action Plan for Hunan Province, a Commemoration Tree for the cooperation was planted together at the Biodiversity Conservation Visitor Centre in Changsha.

Field Trips: Biodiversity Conservation Visitor Centre in Changsha, Zhangjiajie National Forest Park and Huayanxi Nature Reserve.

Informal Cooperation Meeting in Vantaa, Finland, 18–27 November 2000

Participants: Mr Jiang Hanhui, Secretary
General of Hunan Forestry Association; Mr
Zhang Yurong, Senior Engineer and Chief of
Forest Protection Institute, Forestry Academy
of Hunan; Mr Yin Yaunling, Senior Engineer
and Deputy Director, Forest Tree Seeds and
Seedlings Management Station, FDH; Mr Rao
Pengcheng, University of Helsinki; Mr Jan
Heino, DG, MH; Dr Rauno Väisänen, Director,
NHS, Deputy DG, MH; Mr Björn Finne,
Director, International Affairs, MH; Mr Tuomo
Kotimäki, Managing Director, Metsähallitus
Consulting; Mr Pertti Kanon, Project Manager,
Metsähallitus Consulting; Mr Lassi Karivalo,
Senior Planning Officer, NHS, MH.

Field Trips: Liesjärvi National Park, Häme Visitor Centre, Patama (Saarijärvi) and Nurmijärvi Nurseries of Forelia, and Lannen Plant Systems at Iso-Vimma, Säkylä.

6th Cooperation Meeting in Vantaa, Finland, 2–8 September 2001

Participants: Mr Liu Shaoxiang, Deputy DG, FDH; Ms Wang Xiaoping, Director and Senior Engineer, Science, Technology & International Cooperation, FDH; Mr Gui Xiaojie, Director, Wildlife Conservation Department, FDH; Mr Luo Zhenxin, Director, Forest Resources Utilization Centre, FDH; Mr Shao Guoshu, Director, Countryside Administration, Division of Hunan Provincial People's Government; Mr Jan Heino, DG, MH; Dr Rauno Väisänen, Director, NHS, Deputy DG, MH; Mr Tuomo Kotimäki, Managing Director, Metsähallitus Consulting; Mr Björn Finne, Director, International Affairs, MH; Mr Lassi Karivalo, Senior Planning Officer, NHS, MH; Mr Pertti Kanon, Project Manager, Metsähallitus Consulting. Field Trips: Evo Hiking Area and multiple-use forests, Nurmijärvi Nursery, Liesjärvi National Park, Häme Visitor Centre, Torronsuo National Park and Paloheimo Wood Sawmill at Riihimäki.

Informal Cooperation Meeting in Vantaa, Finland, 13 August 2002

Participants: Mr Ge Handong, DG, the FDH; Ms Liu Lianyu, DG, Foreign Affairs, Hunan Provincial Government; Mr Xu Xianping, DG, Planning Commission, Hunan Provincial Government; Mr Li Lixi, Deputy DG, Foreign Affairs, Hunan Provincial Government; Mr Gui Xiaojie, Director, Wildlife Conservation Department, FDH; Dr Rauno Väisänen, Director, NHS, Deputy DG, MH; Mr Björn Finne, Director, International Affairs, MH; Mr Lassi Karivalo, Senior Planning Officer, NHS, MH.

The meeting was a part of the visit programme in Finland of the eight-member delegation led by Mr *Yang Zhengwu*, Director-General of the Standing Committee of Hunan Provincial People's Congress. In association

with the meeting, a visit to Metsähallitus Rovaniemi Office and Rovaniemi Seed Centre of Forelia on 15 August was organised.

7th Cooperation Meeting in Changsha, P.R. China, 27–29 November 2002

Participants: Mr Jan Heino, DG, MH; Mr Björn Finne, Director, International Affairs, MH; Mr Ge Handong, DG, FDH; Mr Gui Xiaojie, Director, Wildlife Conservation Division, FDH; Ms Wang Xiaoping, Director, Technology and International Cooperation Division, FDH; Mr Zhang Caixue, Director, Seed and Seedling Production Station, FDH; Mr Liu Kaiming, Director, Development and Counting Division, FDH; Mr HuYiying, Director, State-Owned Forest and Forest Park Administration Bureau, FDH; Mr Luo Zhenxin, Director, Forest Development and Utilization Center, FDH; Mr Ouyana Xuhui, Director, Forestry Technology Training Center, FDH; Mr Peng Yahui, Director, Nature Reserve Management Station, FDH. Field Trips: Changsha Park and Visitor Centre and Hunan Seeds and Seedling Reproduction Exemplary Centre.

8th Cooperation Meeting in Vantaa, Finland, 24–28 September 2003

Participants: Mr Xie Kangsheng, Advisor, Hunan Provincial Greening Commission; Mr Li Dingyi, Deputy DG, the FDH; Mr Lu Xingsheng, Deputy Secretary General, Hunan Provincial Greening Commission; Mr Gui Xiaojie, Director, Wildlife Conservation Division, FDH; Mr Sun Jianyi, Director, Forestry Seed and Seedling Centre, FDH; Mr Ouyang Xuhui, Director, Hunan Forestry Tourism Cooperation, FDH; Mr Jan Heino, DG, MH; Dr Rauno Väisänen, Director, NHS, Deputy DG, MH; Mr Björn Finne, Director, International Affairs, MH; Mr Lassi Karivalo, Senior Planning Officer, NHS, MH; Dr Yrjö Norokorpi, Superintendent, Pallas-Ounastunturi National Park, NHS, MH; Mr Hannu Sipinen, Senior Planning Officer, NHS, MH.

Field Trips: Nurmijärvi Nursery of Forelia, Aulanko National Urban Park, Teijo National Hiking Area, and Ekenäs Archipelago (Tammisaari) National Park.

Study Tour of Forest Specialists to Finland in 2004

Participants: Several forest experts from the FDH, headed by Mr *Pang*.

Study Tour of Ecotourism Specialists to Finland in 2004

Participants: Several ecotourism experts from the FDH.

9th Cooperation Meeting in Changsha, P.R. China, 22–27 November 2004

Participants: Dr Rauno Väisänen, Director. NHS, Deputy DG, MH; Mr Björn Finne, Director, International Affairs, MH; Ms Marja Männistö, Director, Wild North, MH: Dr Yriö Norokorpi. Superintendent, Pallas-Ounastunturi National Park, NHS, MH; Mr Hannu Sipinen, Senior Planning Officer, NHS, MH; Mr Ge Handong, DG, FDH; Ms Zhao Aigun, Deputy DG, FDH; Mr Gui Xiaojie, Director, Wildlife Conservation Department, FDH: Mr Wana Xiaoping, Director, International Cooperation Division, FDH; Mr Hu Yiying, Director, State Forest Farm and Forest Park Division, FDH; Mr Wang Guangrong, Director, Forestry Academy of Hunan; Mr Wu Jianbo, Director, Administration Office. FDH: Mr Sun Jianvi. Director. Seed and Seedling Production Centre, FDH.

Dr Rauno Väisänen gave a lecture on Nature Conservation, Forestry and Ecotourism at the Hunan Biology and Environment College. The renovation of the Finnish exhibition at the Hunan Forest and Wetland Biodiversity Centre was carried out prior to the meeting, from 19 September onwards, by Mr Hannu Sipinen.

Field Trips: Hunan Polytechnic of Environment and Biology, Nanyue Nature Reserve, Zhangjiajie National Forest Park, Hunan Forest and Wetland Biodiversity Visitor Centre, Hunan Seeds and Seedling Reproduction Exemplary Centre.

Informal Cooperation Meeting in Beijing, P.R. China, 21 March 2005

Participants: Mr *Björn Finne*, Director, International Affairs, MH; Mr *Bai Fangmin*, Deputy DG, FDH; Mr *Wang Xiaoping*, Director, FDH; Mr *Gui Xiaojie*, Director, FDH; Mr *Li Xiquan*, Deputy Director, FDH.

The meeting was held in association with a Sino-Finnish Forestry Seminar organised by the Sino-Finnish Working Group on Forestry.

10th Cooperation Meeting in Vantaa, Finland, 16–20 August 2005

Participants: Mr Bai Fangmin, Deputy DG, Engineer General, FDH; Mr Zuo Jiabu, Professor, Vice-President, Hunan Polytechnic of Environment and Biology; Mr Deng Ligun, Deputy Director, FDH; Ms Lai Yue, Deputy Director, FDH; Mr Xu Yongxin, Senior Engineer, FDH: Mr Jan Heino, DG, MH: Dr Rauno Väisänen. Director, NHS, Deputy DG, MH; Mr Björn Finne, Director, International Affairs, MH; Mr Jyrki Tolonen, Director, Wild North, MH; Mr Juha Järvenpää, Project Manager, Forelia, MH; Mr Lassi Karivalo, Senior Planning Officer, NHS, MH. Field Trips: Nurmijärvi Nurserv of Forelia. Metsäliitto wood supply, M-Real Paper Mill at Kirkniemi, Faculty of Agriculture and Forestry and Viikki Tropical Resources Institute of the University of Helsinki, Suomenlinna Fortress and UNESCO World Heritage Site, Langinkoski Nature Reserve and the imperial summerhouse of the Russian Tsar, Kotka Maretarium, and Eastern Gulf of Finland National Park.

Staff exchange from Zhangjiajie National Forest Park to Pallas-Yllästunturi National Park, Finland, 25 June – 20 August 2006

Participants: Mr Lai Xiaociao, Manager, Ecotourism and the Translator of the Park, Zhangjiajie National Forest Park, FDH; Mr Meng Xaingfu, Head, Natural Resources Conservation Institute.

Field Trips: Pyhä-Luosto National Park, Pyhätunturi Visitor Centre, Savukoski Visitor Centre, Lampivaara Amethyst Mine, Kairijoki



The 10th Cooperation Meeting was headed by Mr. Bai Fangming, Vice Governer, Hunan Province and Mr. Jan Heino, DG of Metsähallitus in Vantaa in August 2005. Photo: FDH.

Sports Fishing Area, Pallas—Yllästunturi
National Park, Kellokas Visitor Centre, Fell
Lapland Visitor Centre, Kilpisjärvi Visitor
Centre, Kilpisjärvi Biological Station, Saana
Nature Trail, Saariselkä Holiday Resort,
Kiehinen Customer Service Point, Koilliskaira
Visitor Centre, Urho Kekkonen National
Park, Arctic Circle Hiking Area, Museum and
Arctic Science Centre Arktikum in Rovaniemi,
Etiäinen Customer Service Point, Santa Claus
Office in Rovaniemi.

11th Cooperation Meeting in Changsha, P.R. China, 14 –21 October 2006

Participants: Dr Rauno Väisänen, Director, NHS, Deputy DG, MH; Mr Matti Määttä, Development Director, NHS, MH; Mr Mika Aho, Assistant Director, MH; Mr Ge Handong, DG, FDH; Mr Li Dingyi, Deputy DG, FDH; Mr Gui Xiaojie, Director, Wildlife Protection Division, FDH; Mr Zou Wangkun, Deputy Director, Science & Technology and International Affairs Division, FDH; Mr Xiong Siqing, Deputy Director, Science & Technology and International Affairs Division, FDH; Mr

Dai Chengdong, Chief, Hunan Key Project Management Station, FDH; Mr *Xu Yongxin*, Wildlife Protection Division, FDH.

It was agreed that the Cooperation Committee will include two members from both MH and the FDH, i.e. Mr Ge Handong, Mr Gui Xiaojie, Dr Rauno Väisänen and Mr Mika Aho.

Field Trips: Mangshan National Nature
Reserve in Yizhang County, Chenzhou
Municipality, and to the Hunan Seeds and
Seedling Reproduction Exemplary Centre and
Hunan Forest and Wetland Biodiversity Visitor
Centre in Changsha.

High-level Visit to Vantaa, Finland, November 2006

Participants: Mr Yang Taibo, Vice-Governor, Hunan Provincial People's Government; Mr Chen Jifang, Deputy Secretary General, Hunan Provincial People's Government; Mr Shi Jianhui, Deputy Director-General; Finance Department of Hunan; Mr Liu Yinghuai, Director, International Exchange & Service Centre, CCPIT Hunan Sub-Council; Dr Rauno Väisänen, Director, NHS, MH.

Staff Exchange of NHS Lapland to Zhangjiajie National Forest Park, P.R. China, 7 October – 1 November 2007

Participants: Mr *Esa Härkönen*, MH; Mr *Juha Sihvo*. NHS. MH.

Field Trip: Zhangjiajie National Forest Park

12th Cooperation Meeting in Vantaa, Finland, 10–14 September 2007

Participants: Mr Hu Changqing, Deputy DG, FDH; Mr Wang Sheng, Consultant, Greening Committee, the FDH; Ms He Yanfang, Director, FDH; Ms Chen Chunhua, Deputy Director, FDH; Mr Wang Mingxu, Director, FDH; Dr Jyrki Kangas, DG, MH; Dr Rauno Väisänen, Director, NHS, Deputy DG, MH; Mr Mika Aho, Assistant Director, MH; Mr Lassi Karivalo, Senior Planning Officer, NHS, MH.

Field Trips: Liesjärvi and Torronsuo National Parks and Häme Visitor Centre.

Delegation from Hunan Provincial People's Government, in Vantaa and Helsinki, Finland, 18–21 July 2008

Participants: Mr Yu Laishan, Deputy Governor, Hunan Provincial People's Government; Mr Deng Sanlong, Director-General, FDH; Mr Shi Jianhui, Deputy Director, Finance Department of Hunan; Mr Xiong Zaihui, Board Chairman, Hunan Ava Holdings Group; Mr Qiu Aihua, Division Chief, Hunan Provincial Foreign and Overseas Affairs Office; Ms Zhang Hua, General Manager, Conference & Exhibition Centre, Hunan Provincial Department of Commerce; Mr Hannu Jokinen, Director, Forestry, Deputy DG, MH; Dr Rauno Väisänen, Director, NHS, Deputy DG, MH.

The delegation was invited to Finland by the Ministry of Agriculture and Forestry of Finland. The delegation visited also other European countries.

The International Forum for National Forest Park 2012 in Changsha, P.R. China, 7–10 December 2012

Participants included: Dr Rauno Väisänen,
Director, NHS, MH; Mr Esko Jaakkola, Senior
Adviser, Ministry of the Environment, Finland;
Mr Yang Chao, Director, National Administration Office, State Forestry Administration
of P.R. China; Mr Xu Minghua, Vice-Governor,
Hunan Province, Prof. Zhou Xianyan, President
of Central South University of Forestry and
Technology; Zhang Jianlong, Vice-Director of
State Forestry Administration; Dr Gui Xioajie,
Director, State-owned Forest and Forest Park
Bureau of Hunan Province, FDH; Prof. Lei
Guangchun, Dean, Beijing Forest University.

The Forum celebrated the 30th anniversary of National Forest Park in China, and was hosted by the State Forestry Administration of P.R. China. The Forum also provided a platform for experts to share their experiences about the development of national parks. About 120 leaders, scholars, and experts from China, USA, Canada, Australia, Germany, UK, South Korea and Finland discussed the role of national forest parks.

Field Trip: Zhangjiajie National Forest Park

13th Cooperation Meeting Between the Forestry Department of Hunan Province (FDH) and Metsähallitus Natural Heritage Services (Parks & Wildlife Finland), in Vantaa, Finland, 3–6 November 2014

Participants included: Mr Wu Jianbo, Deputy Director General, FDH; Dr Gui Xiaojie, Director of State Forest and Forest Park Bureau, FDH; Mr Xu Yongxin, Wildlife Protection Division, FDH; Mr Esa Härmälä, Director-General, Metsähallitus; Dr Rauno Väisänen, Director of Parks & Wildlife Finland (P&WF); Mr Kari Lahti, Senior Advisor, International Cooperation, P&WF; Ms Liisa Nikula, Senior Advisor, International Cooperation, P&WF; Ms Sari Jääskeläinen, Project Manager, Assistant of International Cooperation, P&WF; Ms Petra Niskanen, Deputy Director, Finnish Nature Centre Haltia, P&WF.

Field Trip: Finnish Lapland beyond the Arctic Circle: Saariselkä Tourist Resort, Parks & Wildlife Finland, Lapland Region, the indigenous Sámi Museum and Nature Centre Siida in Inari.



During the 13th Cooperation Meeting, Mr. Wu Jianbo, Deputy DG of FDH met with Mr. Esa Härmälä, DG of Metsähallitus in Vantaa in November 2014. РНОТО: FDH.



The welcome dinner of the 14th Cooperation Meeting was hosted by Mr Sun Jinlong, Deputy Secretary, CPC, Hunan Provincial Committee (in the middle) in Changsha in March 2015. Mr Deng Sanlong, Director-General, Forest Department of Hunan Province second from the right. PHOTO: FDH.

14th Cooperation Meeting Between Metsähallitus Parks & Wildlife Finland and the Forest Department of Hunan (FDH), Changsha, Hunan Province, P.R. China, 17–20 March 2015

Participants included: Dr *Rauno Väisänen*, Director, P&WF, Mr *Arto Ahokumpu*, Director of Development Projects, P&WF; Ms *Sari Hey* (*née Jääskeläinen*), Assistant of International Cooperation and Project Manager, P&WF; Mr Deng Sanlong, DG, FDH; Mr Bai Fangmin, Deputy DG, FDH; Mr Wu Jianbo, Deputy DG, FDH; Ms Jiang Yun, Director, Science-Technology & International Cooperation Division, FDH; Mr Gui Xiaojie, Director, State-owned Forests and Forest Parks Bureau, FDH; Mr Chen Hongchang, Deputy Director, Wildlife Protection Division, FDH; Mr Zhou Can, Deputy Director, Office of FDH; Ms Xie Zhihong, Deputy Director, Science-Technology

& International Cooperation Division, FDH; Mr *Deng Shaohong*, Deputy Director, Forestry Industry Administration Office, FDH; Mr *Xu Yongxin*, Section Director, Wildlife Protection Division, FDH.

Field Trip: Hunan Forestry Information Center, Hunan Forest Botanic Garden, Zhangjiajie National Forest Park, Nanhua Mountain National Forest Park, Aizhai Forest Parks and Hunan Forestry Seedling Centre.



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