

TAB 17: FOREST SERVICE

USDA Forest Service US-China S&T Participation

**Program Title: Regeneration/Restoration
present**

Year(s): 2002-

Participating US Agencies: USDA Forest Service (FS)

Participating PRC Agencies: State Forestry Administration (SFA), Chinese Academy of Forestry (CAF), Chinese Academy of Sciences (CAS)

Does project falls under the 1979 S&T Agreement with China? Yes ___ No X

Brief Description of Activity:

Restoration/Forest Health – The State Forestry Administration in collaboration with the USDA Forest Service, the Memphis Zoo and others are continuing a project that looks at various strategies and practices that can be implemented to facilitate and restore healthy forests. The approach is to start with five pilot or demonstration areas with different conditions and needs. Primarily working at the village or farmer level, the project will explore various treatments to move or maintain the demonstration areas towards a more healthy state while having a strong consideration for the needs and livelihoods of the local villagers and farmers. Assuming the demonstrations are successful, the State Forestry Administration intends to expand this process in other areas throughout China. As a part of the project, a national level workshop was held in 2002 to share the concept of the project and progress of the demonstration areas in addition to sharing broader strategies for approaching healthy forests through restoration and other forest management practices.

Technology Transfer

Provided technical assistance in establishing plantations for multi-purposes/functions at both a landscape and site scale.

List of Participants

Name	Title	Nationality	Date of Exchange
1. <u>Wu Jian</u>	<u>Chief, Professor, Pest Control (SFA)</u>	<u>Chinese</u>	<u>1999-present</u>
2. <u>Cao Guojiang</u>	<u>Deputy Director General (SFA)</u>	<u>Chinese</u>	<u>2000-present</u>
3. <u>Gary Man</u>	<u>Asia-Pacific Program Coord. (FS)</u>	<u>American</u>	<u>1999-present</u>
4. <u>John Ouellette</u>	<u>Research Coord. Memphis Zoo</u>	<u>American</u>	<u>2001-present</u>

Total Expenditure \$40,000 (including Forest Service, State Forestry Administration)

Follow-on activities

Continue developing forest health demonstration areas and hosting technical study tours.

Program Title: Invasive Species Program
present

Year(s): 2002-

Participating US Agencies: USDA Forest Service (FS), Animal and Plant Health Inspection Service (APHIS)

Participating PRC Agencies: State Forestry Administration (SFA), Chinese Academy of Forestry (CAF), Chinese Academy of Sciences (CAS), Chinese Academy of Agricultural Sciences (CAAS), Beijing Forestry University (BFU)

Does project falls under the 1979 S&T Agreement with China? Yes ___ No X

Brief Description of Activity:

Asian Long-Horned Beetle – This project is part of a larger effort to eradicate the Asian long-horned beetle in the United States. Specifically, this set of activities includes: working on a trap and survey design for ALHB, evaluating insecticides and application methods for suppressing adult and larval stages, and developing a bibliography and information database of ALHB and its close relatives. To date, work has isolated pheromones and kairomones for potential trap attractants, and evaluated three insecticide application methods. The chemical control results are now being applied in the United States.

Asian Long- Horned Beetle Conference – An Asian long-horned beetle conference was held in 2002 in China. The purpose of this conference was to help facilitate information sharing and collaboration that results in the eradication and control of this damaging pest in both countries. Over 100 people participated in this Conference from China and the U.S.

Invasive Pests Collaboration – The USDA Forest Service and Chinese State Forestry Administration are collaborating on other threatening pests. Examples of collaborative efforts have included providing information on specific pests, hosting information gathering trips and working together on solutions that control invasive species from each other's country. Recent introduced pests where some form of collaboration has occurred include: the red turpentine beetle (Dendroctonus valens), pine mealybug (Oracella acuta), and the hemlock wooley adelgid (Adelges). The fist two pests are introductions from the United States and the third from China.

Mile-a- Minute Weed – This cooperative project, titled “Determining the Potential for Using Natural Enemies Found in China to Control Mile-a-Minute in the U.S.” is conducting surveys for natural enemies, establishing colonies of promising natural enemies, and conducting host range tests in China. Based upon initial host testing, potential natural enemies are being further tested in the United States.

Kudzu Biocontrol – A set of activities are being implemented to search for effective biological control vectors that reduce the impact of Kudzu in the Southern portion of the United States. Currently the project is in its third year of screening potential control

agents. A number of stem and root-boring beetles stem feeding weevils and three defoliators and a fungal disease were tested in 2001 but did not pass the host preference tests.

Pest Publication – This project will revise, expand and translate a Chinese publication titled “Parasites and Predators of Forest Pests in China” which will be republished in both Chinese and English. This publication summarizes the status of the effectiveness of biological controls for numerous forest pests in China, many of which have been identified as invasive and potential threats to North American forests.

Emerald ash borer – This activity is conducting a literature review and surveys on emerald ash borer in China, one of its native habitats. With this information and further testing, we hope to find control solutions to this serious invasive species in the United States.

Technology Transfer

Sampling design and survey for biological control agents for the invasive species listed above.

List of Participants

Name	Title	Nationality	Date of Exchange
1. Wu Jian	Chief, Professor, Pest Control (SFA)	Chinese	1997-present
2. Yang Zhong-qi	Professor of Entomology (CAF)	Chinese	1997-present
3. Lou Youqing	Professor of Entomology (BFU)	Chinese	1997-present
4. Chen Mu Rong	Chief of Pest Control Station (SFA)	Chinese	1997-present
5. Wang Xiaqo Hua	Senior Engineer, Pest Control (SFA)	Chinese	2001-present
6. Allan Bullard	Director, Forest Health Enterprise (FS)	American	1997-present
7. Gary Man	Asia-Pacific Program Coord. (FS)	American	1997-present
8. Richard Reardon	Biological Program Manager (FS)	American	1997-present
9. Boade Wang	Pest Management (APHIS)	American	1997-present
10. Robert Haack	Research Scientist (FS)	American	2001-present

Total Expenditure \$1.0 million (including Forest Service, APHIS, State Forestry Administration)

Follow-on activities

Continue with finding control methods for the invasive species listed above and others that arise.

Program Title: Fire Management

Year(s): 2002-present

Participating US Agencies: USDA Forest Service (FS)

Participating PRC Agencies: State Forestry Administration (SFA), Chinese Academy of Forestry (CAF)

Does project falls under the 1979 S&T Agreement with China? Yes ___ No X

Brief Description of Activity:

The Use of Remote Sensing Technologies to Monitor Fires – The Chinese Academy of Forestry and the USDA Forest Service are collaborating to test remote sensing technologies that can help to in the efficient monitoring of wildfires. Initial exchange visits have occurred and specific joint activities are now underway. Data collection has been completed for a study to measure and model the distribution of particulate matter from fires and other sources. Another activity validating imagery from Moderate Resolution Imaging Spectroradiometer (MODIS) and testing its utility in monitoring fires is just beginning. The Forest Service will be hosting two Chinese Scientists to learn about the use of MODIS imagery for monitoring and detecting fires.

Technology Transfer

Provide information and share data regarding MODIS imagery and techniques to measure particulate matter primarily from fires.

List of Participants

Name	Title	Nationality	Date of Exchange
1. Yi Haoruo	Deputy Director (CAF)	Chinese	1999-present
2. Wei Min Hao	Research Scientist (FS)	American	1999-present
3. Gary Man	Asia-Pacific Program Coord. (FS)	American	1999-present

Total Expenditure \$20,000

Follow-on activities

Continue to share data and processes in remote sensing related to monitoring fires.

Program Title: Forest Management

Year(s): 2002-present

Participating US Agencies: USDA Forest Service (FS)

Participating PRC Agencies: State Forestry Administration (SFA)

Does project falls under the 1979 S&T Agreement with China? Yes ___ No ___X

Brief Description of Activity:

Code of Forest Harvesting Practices – The Chinese State Forestry Administration with some support from the USDA Forest Service has a project to develop and test codes of forest harvesting practices that can help lead to improved forest management in China. The International Labor Organization in cooperation with the Food and Agriculture Organization provided funding for the initial development phase. The Chinese currently have a draft and are providing training in the use of the code. The USDA Forest Service provided harvesting specialists to comment on the draft codes of practice and some funding in the development phase and plans to continue to provide technical assistance. The State Forestry Administration is currently seeking support to further test and demonstrate their Codes of Practice.

Technology Transfer

Technical advice on developing best practices for forest harvesting.

List of Participants

Name	Title	Nationality	Date of Exchange
1. Zhang Songdan	Director, Forest Resources (SFA)	Chinese	2000-present
2. Gary Man	Asia-Pacific Program Coord. (FS)	American	2000-present
3. Douglas MacCleery	Asst. Director Forest and Range (FS)	American	2000-present

Total Expenditure ___ \$10,000

Follow-on activities

Continue to support the validation of the code of forest harvesting practices.

Program Title: Natural Resource Policy and Economics
present

Year(s): 2002-

Participating US Agencies: USDA Forest Service (FS)

Participating PRC Agencies: Chinese State Forestry Administration (SFA), Chinese Academy of Sciences (CAS)

Does project falls under the 1979 S&T Agreement with China? Yes ___ No X

Brief Description of Activity:

Building Policy and Economic Analysis Capacity – The USDA Forest Service is working with the Chinese Academy of Sciences, Center for Chinese Agricultural Policy and the Chinese State Forestry Administration on a project that helps their staff and others in China perform sound economic and policy analysis that can be used by their decision-makers. As part of this effort, topic specific seminars, supplemented by case studies are being supported. The Center for Chinese Agricultural Policy is focusing primarily the academic aspects of economic and policy analysis while the State Forestry Administration is focusing on application aspects, especially involving their own staffs.

Technology Transfer

Provided techniques and processes to develop and conduct policy and economic analysis.

List of Participants

Name	Title	Nationality	Date of Exchange
1. Wang Xuan	Deputy Director General (SFA)	Chinese	2000-present
2. Xu Jintao	Deputy Director (CAS)	Chinese	2000-present
3. Gary Man	Asia-Pacific Program Coord. (FS)	American	2000-present
4. Douglas MacCleery	Asst. Director Forest and Range (FS)	American	2000-present

Total Expenditure \$20,000

Follow-on activities

Continue to provide technical assistance in developing and conducting policy and economic analysis that will lead to a more integrated approach.