GIAHS Implementation: China's Works and Experiences

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IGSNRR/CAS





GIAHS

Globally Important Agricultural Heritage Systems







Background

- In June 2005, Qingtian Rice Fish Culture System was designated as GIAHS pilot site
- In Feb. 2009, FAO/GEF GIAHS project was launched officially
- Goals: 1 model; 10 GIAHS sites; 20 NIAHS sites







Activities

Discover (the unknown values and sites)

- Field survey (Socio-economic, Eco-environmental, Types and characteristics, Current states and threats, Opportunities and challenges, …)





- Evaluation (Ecological, Economic, Cultural, Social, resilience, sustainability, …)



- New sites (8+3 GIAHS sites; 19+20 NIAHS sites, …)





Dynamic conservation

- Master plan & Regulation





中华人民共和国农业
Ministry of Agriculture of the People's Republic of C

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农业部关于公开征求《中国全球重要农业文化遗产管理办法（征求意见稿）》意见的通知

发布单位：农业部国际合作司 日期：2013-09-30 16:26 关键词：农业文化遗产

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我国拥有多个联合国粮农组织批准的“全球重要农业文化遗产”。为加强对我国“全球重要农业文化遗产”的保护与管理，依据《中华人民共和国农业法》、《风景名胜区条例》等法律法规，参考《生物多样性公约》、《保护非物质文化遗产公约》、《保护世界文化和自然遗产公约》等国际条约，农业部组织起草了《中国全球重要农业文化遗产管理办法（征求意见稿）》，现公开向社会征求意见，欢迎社会各界参与讨论。

可通过以下途径和方式提出反馈意见：

（1）发送电子邮件：guolinan@agri.gov.cn；

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- Payment for Ecosystem Services, GIAHS-labeled products, and Agri-tourism













- Combined with modern Agri-techniques & management and Development





- Inter-disciplinary and Domestic & International collaboration





Demonstration & Diffusion

- Training (lecture, field trip, dialogue, …)





- Propaganda (brochure, TV, newspaper, web, blog, exhibition, …)

MINISTRY OF AGRICULTURE
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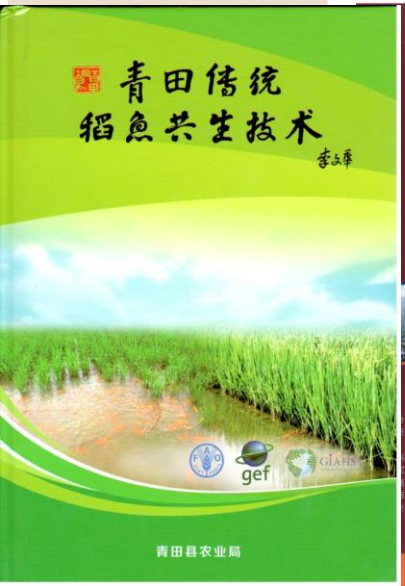
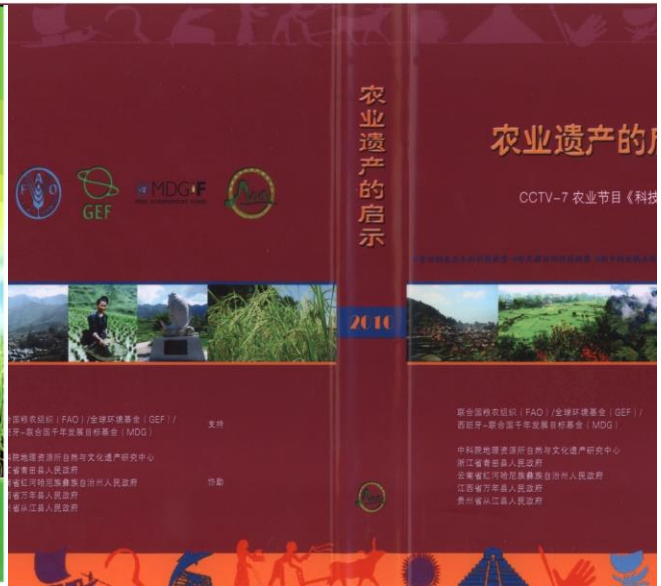




CHINA DAILY 中国日报 WEDNESDAY, FEBRUARY 22, 2012 lifescience 19

Fishing for solutions

A mountainside village that practices aquaculture in rice paddies might hold the key to improving agronomy nationwide. **Xu Junqian** reports.

Fish have played a greater role in life in remote Zhejiang province's Longxian village than perhaps in any other of the country's seaside fishing towns. Fish are the theme of folk songs and dances, and festival celebrations. The village's ancestral hall is laden with fish-shaped lanterns. Every family's front yard hosts a square fishpond brimming with red and spotted carp. More emphasis is put on the ponds than on the gates in this settlement in Qingtian county. That's because a unique symbiotic rice-fish aquaculture system has fed the village for more than 1,700 years. Fish are raised in rice paddies, saving space and labor so farmers can produce more crops and fish. "Land conservation is, of course, the biggest advantage," agronomist Wu Minfang says, standing by the stone fish statue that marks the mountainside village's entrance. On the back of the human-sized statue is a marble sign that reads: "Globally Important Agricultural Heritage System (GIAHS)". The sign rises above the gravel main road to the village of 1,500. It was erected after the Food and Agriculture Organization of the United Nations (FAO) named the village's rice-fish system among the first five GIAHS programs in 2005.

The village has come to prominence as the Chinese central government prioritizes agricultural technology.

"Everyone has been talking about new scientific revolutions, but here is a system that has been created, sustained and proven by generations of farmers building on thousands of years of knowledge and experience," says Wu, who has studied the system his entire life.

The rice plants provide the fish shelter from the sun and predators like egrets. The fish fertilize the rice, regulate the paddies' microclimates, and eat the larvae and weeds that harm rice.

The village is nine tenths mountainous. Half the remaining land is covered by water and the other half is field, Wu explains.

"So, our ancestors developed this agronomy to survive," Wu says.

Longxian covers about 27 hectares and contains 140 fishponds, local government figures show. It produces about 10,000 kg of *tianyu* carp.

Farmer Yang Minkang says he has spent more time with his fish than his children.

The 55-year-old sprinkles a handful of fry into his 0.6-hectare paddy during the Lunar New Year, and harvests 250-gram fish in September.

"You have to put them in the water at dawn or dusk," he explains.

"The water's too warm for them to adapt at noon."

Yang is shy except when talking about fish. Then he becomes hyperactively animated.

The farmer has started developing his "only interest and area of expertise" into a profitable business since 2006, as he and his wife opened a restaurant after his wife discovered visitors want dried and cooked *tianyu*.

"A growing number of businesspeople from neighboring cities like Wenzhou and Hangzhou are driving here on weekends to try our fish and enjoy the countryside setting," Yang says.

Business has been brisk for the couple, who had previously sought their fortunes toiling as migrant workers in cities — but in vain.

The couple and their son invested 80,000 yuan ($12,700) and hired a helper to renovate their one-room store and an abandoned mill into a two-story eatery.

"Over hundreds of years, my ancestors passed down this plot of land and a few tools," Yang says.

"But I'll pass down the land and keys to this restaurant to my descendents."

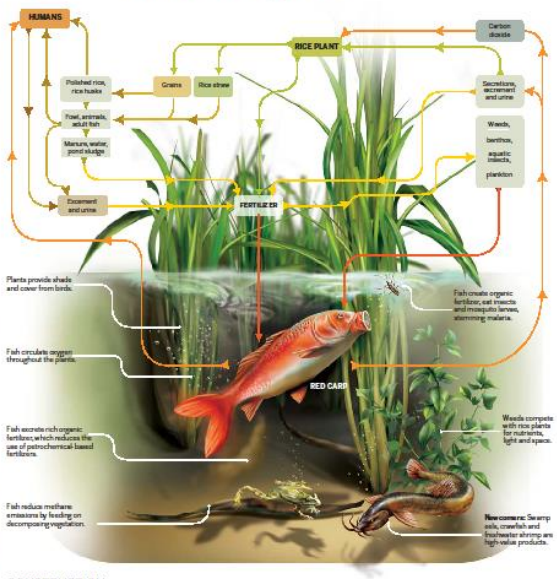
Wu looks at the bigger picture. He believes that with a few tweaks, Longxian's rice-fish system could be adopted nationwide.

"[This can create] resilient ecosystems that benefit both nature and humankind," he says.

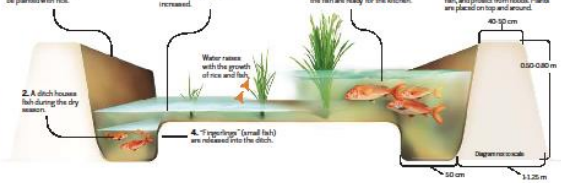
You can contact the writer at xujunqian@chinadaily.com.cn.

SYMBIOTIC PERFECTION

HOW ENERGY FLOWS IN THE RICE-PADDY AQUACULTURE



CONSTRUCTION

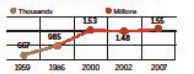


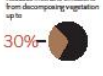
DID YOU KNOW?

10% increase in the output of rice-fish farming, according to the FAO.

2–3 million rural households in China have improved their lives through rice-fishing, according to the FAO.

2-4 thousand dollars are produced per hectare, according to the FAO. Crustaceans can bring 3-5 times the amount that carp do.





Sources: FAO, Knowledge Alliance, Practical Action, World Fish Center

GUILLERMO MUNRO/ CHINA DAILY

Cultivating perspectives on ancient agriculture

By JIN ZHU
CHINA DAILY

BEIJING — Traditional agriculture researcher Min Qingwen believes every age-old farming convention has value.

The 49-year-old's views fly in the face of contemporary piety, which hails large-scale high-tech farming as the savior of a growing global population.

While Min's views might be unorthodox, he's no fringe crackpot. Rather, he is deputy-director of Center for Natural and Cultural Heritage, Institute of Geographic Sciences and Natural Resources Research under the Chinese Academy of Sciences.

The country's grain output has remained higher than 500 million tons annually since 2007, National Bureau of Statistics figures show. It grew by 4.5 percent to reach 571 million tons last year.

Nearly 60 percent of the grain came from Northeast China, where favorable climate and industrialized agriculture produce high yields.

"Many agricultural experts believe modernized farming, which relies heavily on chemicals and large-scale mechanization, is the only way to feed the growing population," Min says.

"They believe traditional farming, which has sustained itself for millennia, is completely outdated and will be replaced. But many of traditional agriculture's essentials have yet to be discovered. They are actually precious legacies handed down over the generations to ensure food safety."

Min's outlook was given a boost in 2002, when the Food and Agriculture Organization of the United Nations (FAO) initiated the Globally Important Agricultural Heritage Systems (GIAHS) program to rescue traditional farming practices that survive in millions of poor rural communities worldwide.

Experts say traditional farming is at risk of disappearing in the face of rural migration and rapid urbanization.

Min and his research team have worked with the FAO to find traditional farming methods and locations in China that are in urgent need of protection. A symbiotic rice-fish aquaculture system that dates back more than 1,000 years in Zhejiang province's Qingtian county was given protection in 2005.

It was listed among the FAO's first five global protection programs. The other four are in Peru, Chile, the Philippines and Algeria/Tunisia.

Few had heard about the protection project at the beginning of the year, when FAO launched its China operations, Min says.

"[The rice-fish system] has lasted for generations, and I really can't imagine that such farming methods could become a global legacy in agriculture's[sic] eyes," he says, paraphrasing a Qingtian county official's words.

"A lack of awareness of traditional farming's importance means its precious legacy will be lost unless local governments take effective preservation measures," Min says.

"Since most programs are in remote areas untouched by modern agriculture, they will safeguard traditional farming and biodiversity, which are essential to humankind's survival, especially in the face of climate change."

Yunnan province's Hani Rice Terraces, which the FAO listed in 2010, have continued high grain output during the drought that has parched Southwest China in recent years. The terraces' output actually increased by 1-2 percent during the 2010 drought, the local statistics bureau reports.

As the FAO says in its statement: "The Hani people utilize and manage water resources in a unique, simple, economical and efficient manner. Also, remarkable land use systems and landscapes, which are rich in biological diversity, inspired the world's future sustainable development."

FAO's project director Dai Weidong says, "China now is a leading country in the protection of traditional farming, such as public awareness and effective local protection measures, which could be used as reference for other countries," he says.

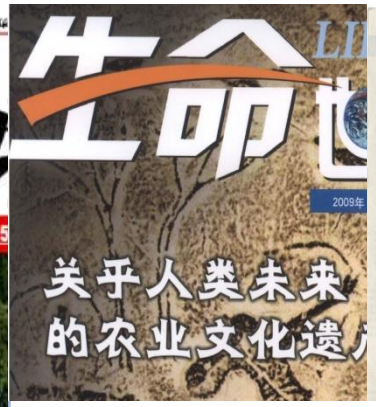
China is expected to have 10 GIAHS programs by 2013, Min says.

You can contact the writer at jinzhu@chinadaily.com.cn.

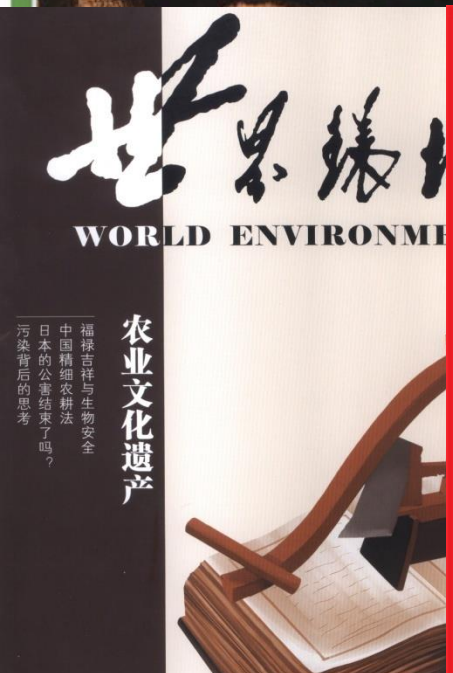
- Publication (academic and popular periodicals, monographs, …)



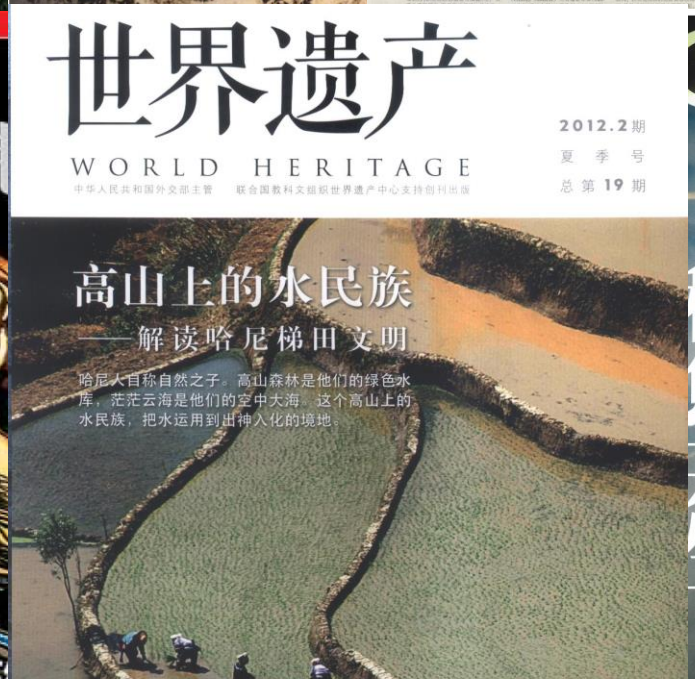














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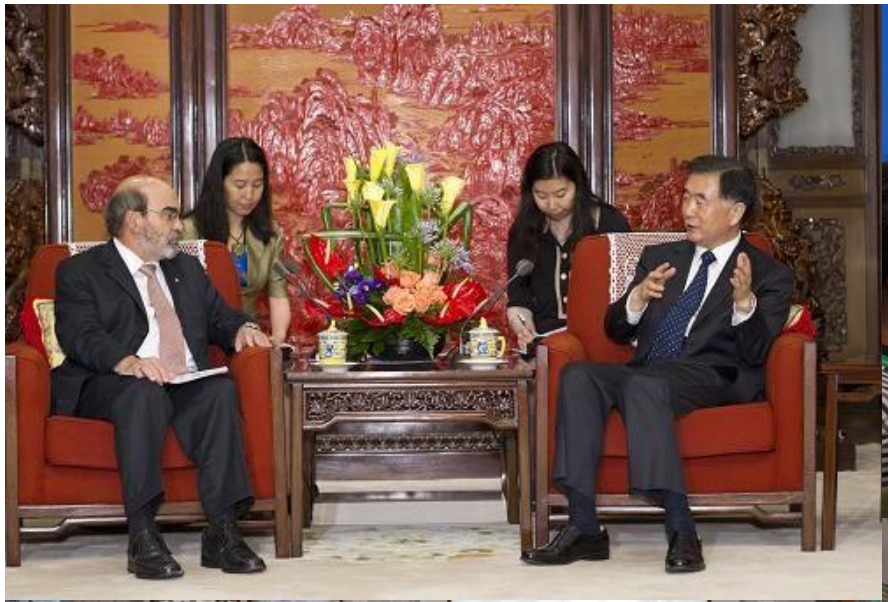
农业部全球重要农业文化遗产专家委员会成立大会

GIAHS

内部交流 免费赠阅

Effects

- More and more governors, scientists, enterprises pay attention to GIAHS/NIAHS.









- More and more citizens know, understand and take care of GIAHS/NIAHS.
- More and more farmers joining and obtaining benefits the conservation of GIAHS/NIAHS







Experiences

The Five-in-One Multi-participation Model:

- Government (Central & local, different sectors)
- Multi-disciplinary Scientists (ecologists, agronomists, economists, historians, planners, managers, …)
- Communities &Farmers
- Enterprises
- Social aspects (Media, citizens, NGOs)

Experiences

The **Five Principles** for GIAHS Conservation & Development:

- Conservation in priority and appropriate utilization
- Systematic conservation and adaptive management
- Dynamic conservation and multi-functional expansion
- Living conservation and benefit sharing
- *In situ* conservation and demonstration/diffusion

Challenges

- How to mainstream GIAHS into national policies (modern agricultural development; ecological progress; sustainable development; beautiful China building; …);
- How to balance GIAHS conservation to industrialization/urbanization/agri-modernization;
- How to promote the special policies and funds for GIAHS conservation researches and practices
- How to attract more enterprises to join the conservation and deal with the possible conflicts with farmers;
- How to attract more farmers to join the conservation and monitor the over-used the resources or abused GIAHS/NIAHS logo.

The Future

- **National Level:** regulation; mid-long term master plan; special policy/fund support; Scientific Committee for GIAHS/NIAHS; products (combined with other labels); tourism (combined with leisure agriculture and rural tourism)
- **Local Level:** regulation; special policy/fund support;
- **Farmers aspect:** active participation and income improvement
- **Scientific aspect**: ERAHS; AHS Branch of CAAS; together with ESC, CAAH…
- **Other aspect:** NGO, urban residents (CSA), enterprises

- **Publication:** Theoretical reports; practical experiences;
- **Media:** CCTV-7 (Enlightenment of Agri-cultural Heritage Systems); China Daily (Eco-China); Farmers Daily; …

- **GIAHS sites:** A single spark can start a prairie fire.
- **Attitude to GIAHS:** From self-abasement to self-confident, to self-awakening, to self-pride, to self-treasure.

GIAHS
Globally Important Agricultural Heritage Systems

全球重要农业文化遗产
——浙江青田稻鱼共生系统

Thank you for your attention!



FAO FIAT PANIS

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Globally Important Agricultural Heritage Systems

China Nationally Important Agricultural Heritage Systems

CENTER FOR NATURAL AND CULTURAL HERITAGE