



Practice of Globally Important Agricultural Heritage Systems (GIAHS) Conservation and Management in China

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I. General introduction



- **Agriculture is the basis of Chinese civilization**
- **Many traditional agricultural systems are well maintained**
- **Ancient philosophy: Human-Nature Harmony**

How to conserve those significant traditional agricultural systems and tap the potential to promote the sustainable development of agriculture?

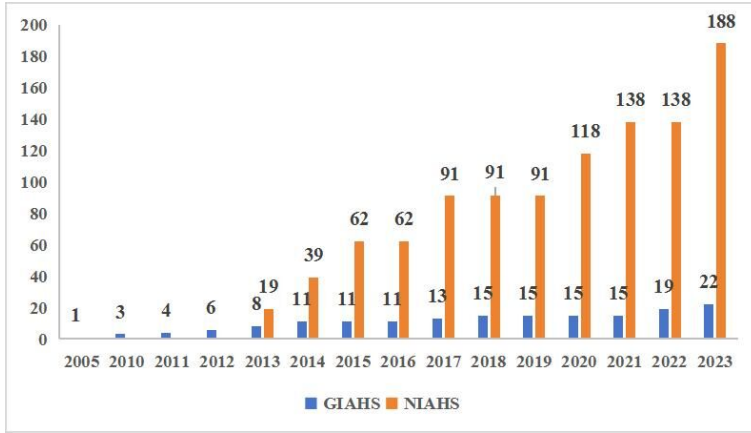
FAO launched the Global Partnership Initiative on conservation and adaptive management of “Globally Important Agricultural Heritage Systems” in 2002



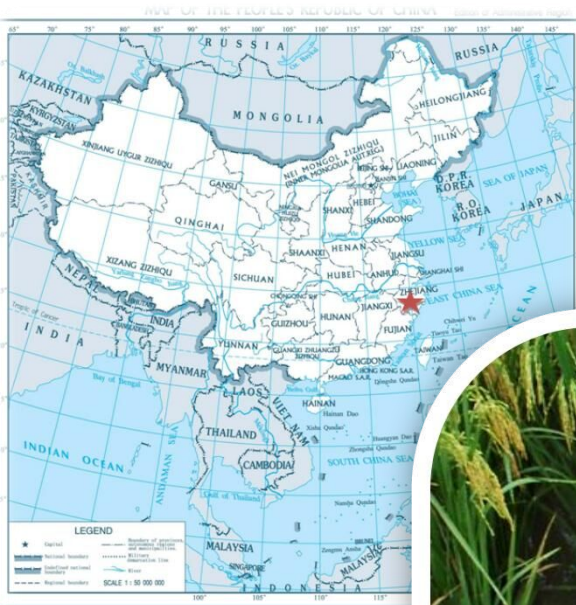
MARA welcomes and actively takes part in the GIAHS Initiative

GIAHS in China

中国GIAHS数量: 22, 中国NIAHS数量: 188
 22 GIAHS sites and 188 NIAHS sites in China

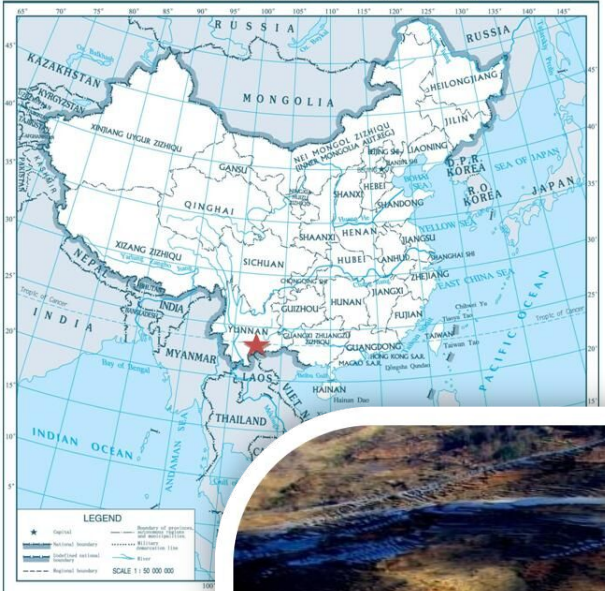


<p>16 福建安溪铁观音系统 安溪铁观音 Fuding Ancient Tea Plantation in Fuding, Fujian Province</p>	<p>4 江西赣南禾鸭鱼系统 赣南禾鸭鱼 Dong's Rice Fish Duck System, Ganzi County, Jiangxi Province</p>	<p>3 江西万年传统作文化系统 万年传统作文化 Wuyuan Traditional Rice Culture System, Jiangxi Province</p>	<p>2 红河哈尼梯田文化系统 哈尼梯田 Hange Rice Terrace System, Yunnan Province</p>	<p>1 浙江青田稻作共生系统 青田稻作共生 Qiantan Rice-Ha Culture System, Zhejiang Province</p>	<p>全球重要农业文化遗产 遗产在中国 Globally Important Agricultural Heritage Systems in China</p>
<p>17 内蒙古阿鲁科尔沁旗游牧系统 阿鲁科尔沁旗游牧系统 At Hovqin Grassland Nomadic System, Inner Mongolia</p>	<p>9 福州茉莉花茶窠窝工艺系统 茉莉花茶窠窝工艺 Fuzhou Humintee and Tea Culture System, Fujian Province</p>	<p>8 湖南安化古丈山古丈茶业系统 安化古丈山古丈茶业 Shaoshan Ancient Tea Plantation, Hunan Province</p>	<p>7 豫西新安传统葡萄园系统 新安传统葡萄园 Xian'an Traditional Vineyard System, Henan Province</p>	<p>6 阿鲁科尔沁旗点状农业系统 点状农业系统 Aohan Dotted Farming System, Inner Mongolia</p>	<p>5 云南勐海传统普洱茶系统 勐海传统普洱茶 Tiaokou Traditional Tea Agroecosystem, Yunnan Province</p>
<p>18 湖北神农架传统旱地银梯田系统 神农架传统旱地银梯田 Shennongjia Dryland Silver Terrace System, Hubei</p>	<p>14 山东烟台传统桑园系统 烟台传统桑园 Traditional Mulberry System in Xigai's Ancient Yellow River Course, Shandong Province</p>	<p>15 浙江湖州现代塘堰系统 湖州现代塘堰 Mudou Modern-dike and Fish Pond System, Zhejiang Province</p>	<p>12 湖北大别山传统旱作农业系统 大别山传统旱作农业 Dabie Zhaijiao Agriculture - Ancient Hubei's Annual Husbandry System, Hubei Province</p>	<p>11 陕西旬邑传统点状园系统 旬邑传统点状园 Juxian Traditional Chinese Dotted Garden System, Shaanxi Province</p>	<p>10 江西婺源传统水稻农业系统 婺源传统水稻农业 Xuyuan Ancient Rice Agroecosystem, Jiangxi Province</p>
<p>19 福建尤溪联合梯田 尤溪联合梯田 Yong'an Lincun Terraces, Fujian Province</p>	<p>20 江西婺源传统梯田系统 婺源传统梯田 Jiangxi Ancient Rice Terraces, Jiangxi Province</p>	<p>21 广西龙脊梯田系统 龙脊梯田 Guangxi Wuyang Longji Terraces, Guangxi Zhuang Autonomous Region</p>	<p>22 湖北神农架传统旱地银梯田系统 神农架传统旱地银梯田 Hubei Ancient Rice Terraces, Hubei Province</p>	<p>15 南方山地稻作梯田系统 南方山地稻作梯田 Southern Mountain Rice Agroecosystem, Shaanxi Province</p>	



1.Qingtian Rice-fish Culture System(2005)





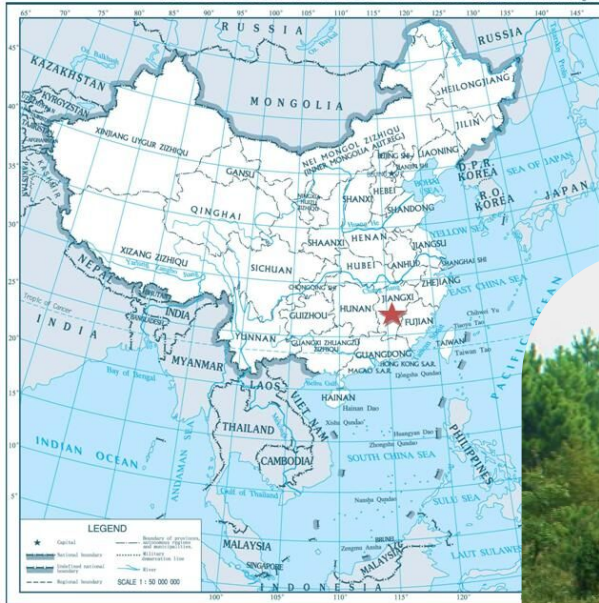
2.Honghe Hani Rice Terraces System(GIAHS-2010)



Designated as the world Heritage by UNESCO in 2013



3.Wannian Tradition Rice Culture(2010)



Wannian rice is one of the earliest cultured rice that so far has been preserved by the mankind. It's genetically strong in pest and disease resistance as well as stress and barren tolerance.

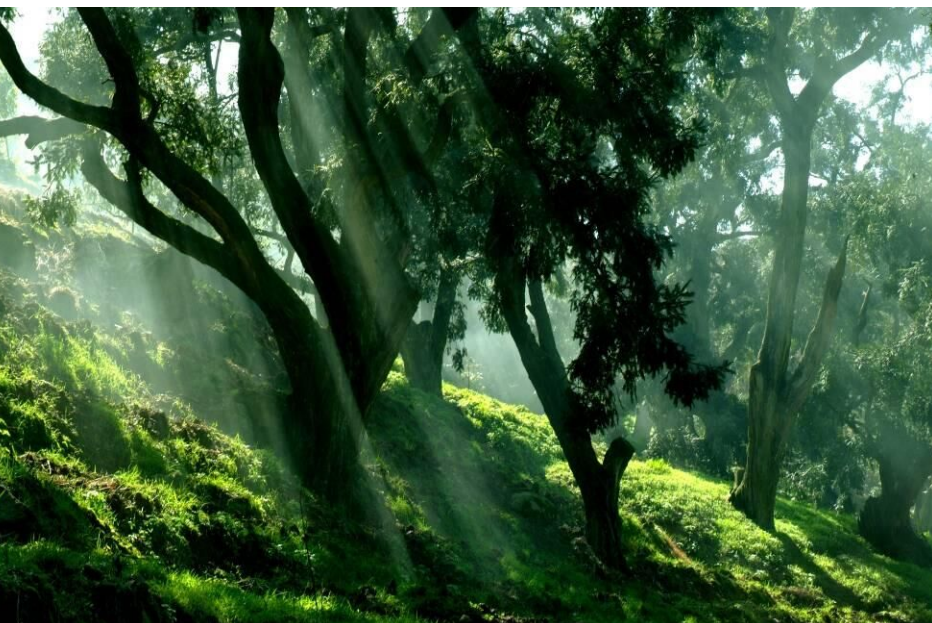


4. Pu'er Traditional Tea Agro system (2012)

5. Aohan Dryland Farming System (2012)

6. Shaoxing Ancient Torreya System (2013)

7. Congjiang Rice-fish-duck System (2011)





8.Xinghua Raised-field Agro system (2014)

10.Xuanhua Urban Grape Gardens (2013)



9.Fuzhou Jasmine & Tea Culture (2014)

11.Jiaxian Traditional Chinese Date Gardens (2014)





12. Zhagana Agriculture-Forestry-Animal Husbandry Composite System(2017)

14. Traditional Mulberry System in Xiajin's Ancient Yellow River Course(2018)



13. Mulberry-dyke and Fish Pond System(2017)

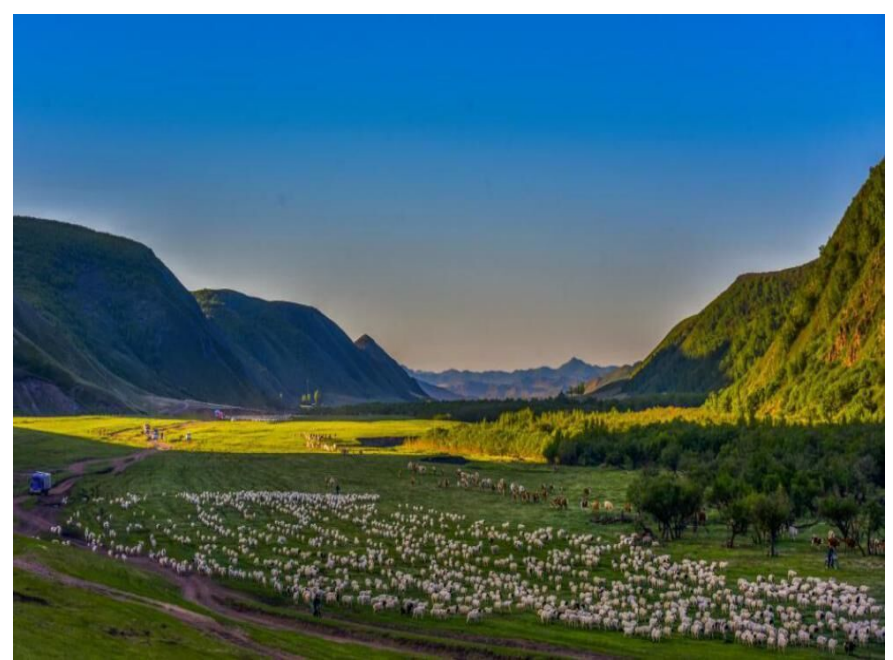
15. Rice Terraces in Southern Mountainous and Hilly Areas (2018)





16. Anxi Tieguanyin Tea Culture System, Fujian(2022)

18. Shexian Dryland Stone Terraced System, Hebei(2022)



17. Ar Horqin Grassland Nomadic System, Inner Mongolia(2022)



19 浙江庆元林—菇共育系统
Qingyuan Forest-Mushroom Co-Culture System, Zhejiang, China

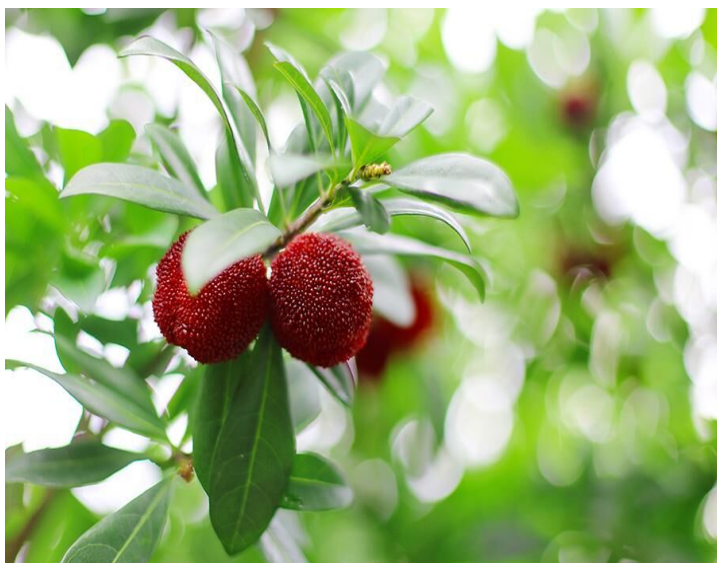
插图(AR + C)



20. Kuancheng Traditional Chestnut Eco-Planting System in Hebei Province



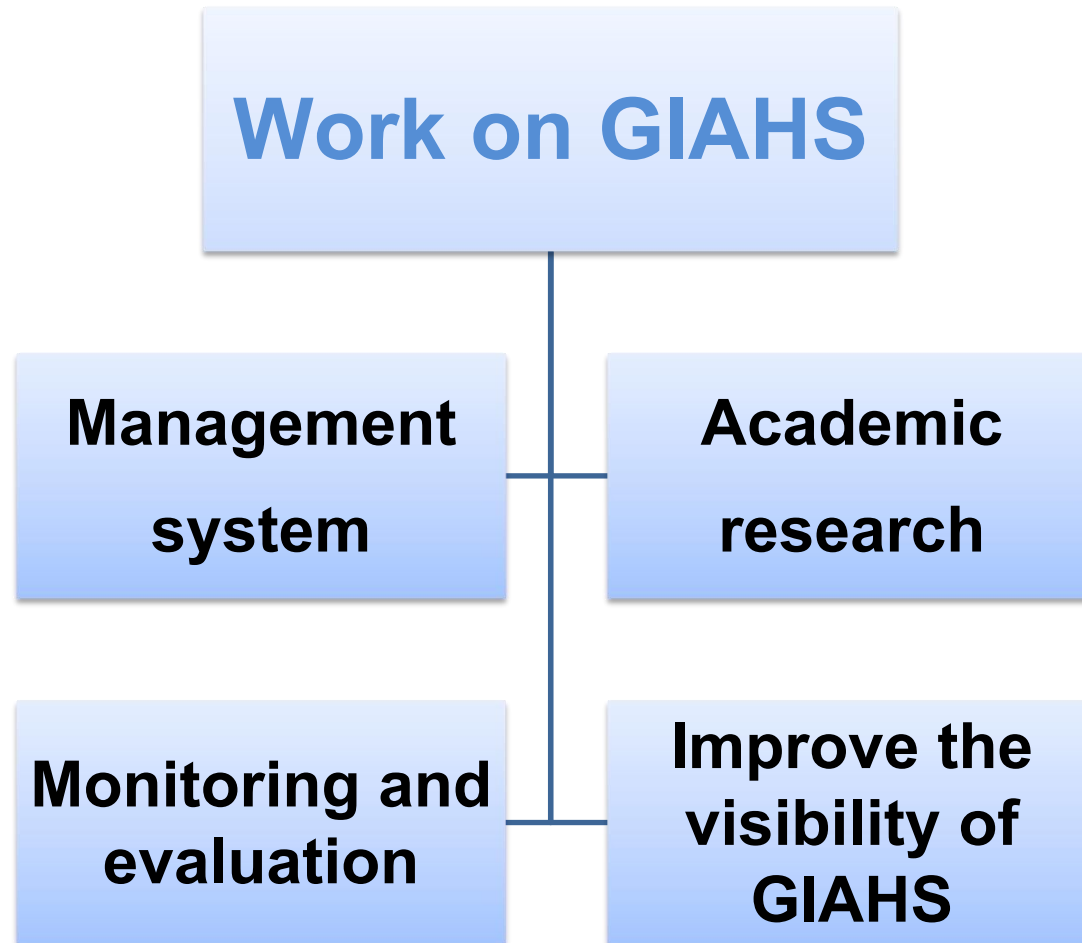
21. Tongling White Ginger Plantation System in Anhui Province



22. Xianju Ancient Chinese Waxberry Composite System in Zhejiang Province

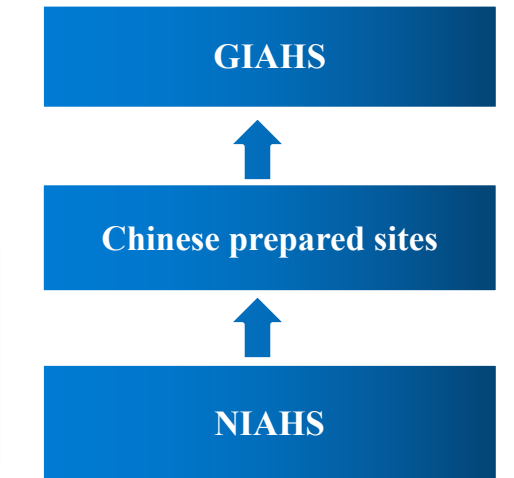
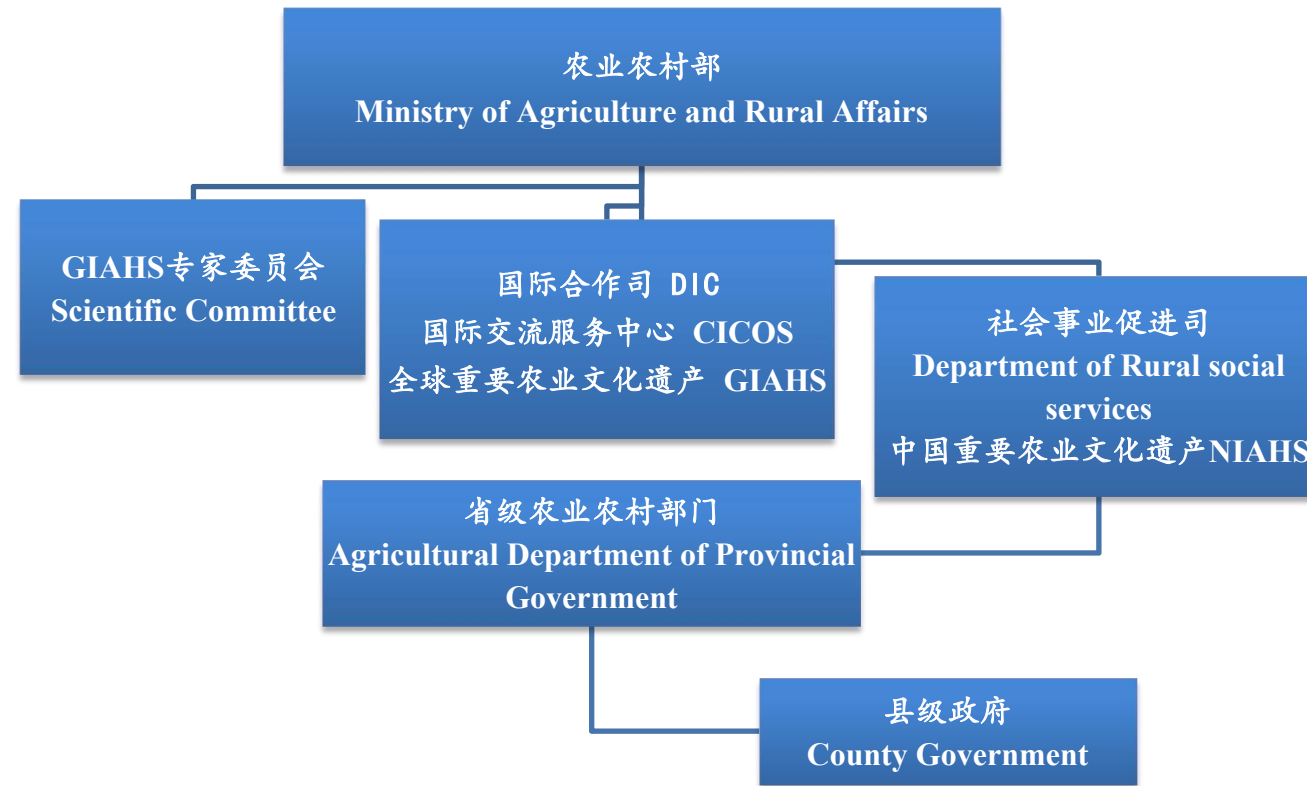
II. Practice of GIAHS Conservation and Management

Measures of dynamic conservation



Management System

Government's Management Structure of GIAHS



GIAHS Application Procedure

Institutionalization and legislation

-created enabling policies and institutional environment

Administrative Measures on GIAHS/NIAHS in China



• 农业农村部公告
Administrative measures of MARA

• 地方保护发展规划
Conservation and development plans at provincial level

• 各地方管理办法
Administrative measures of GIAHS sites

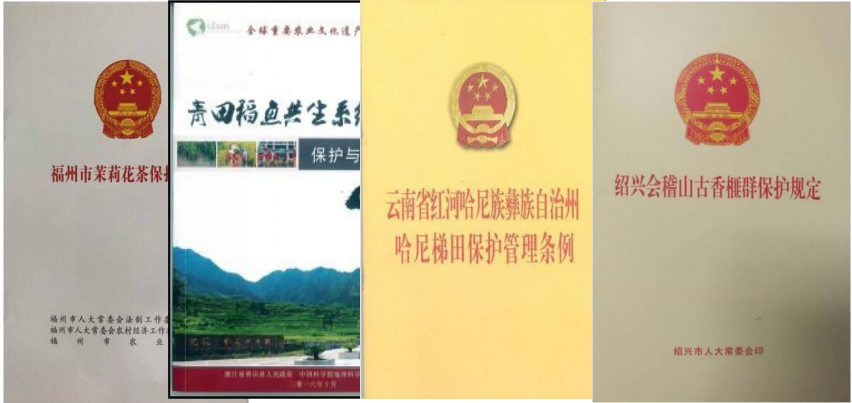
Includes:

- Application procedures
- Conservation & Management
- Utilization & Development
- Supervision & Monitoring

More than 10 GIAHS sites have enacted laws or regulations



- Law on the promotion of rural vitalization (2021)
- No. 1 central document
- Overall plan for the ecological protection and high-quality development of the Yellow River basin (2021)



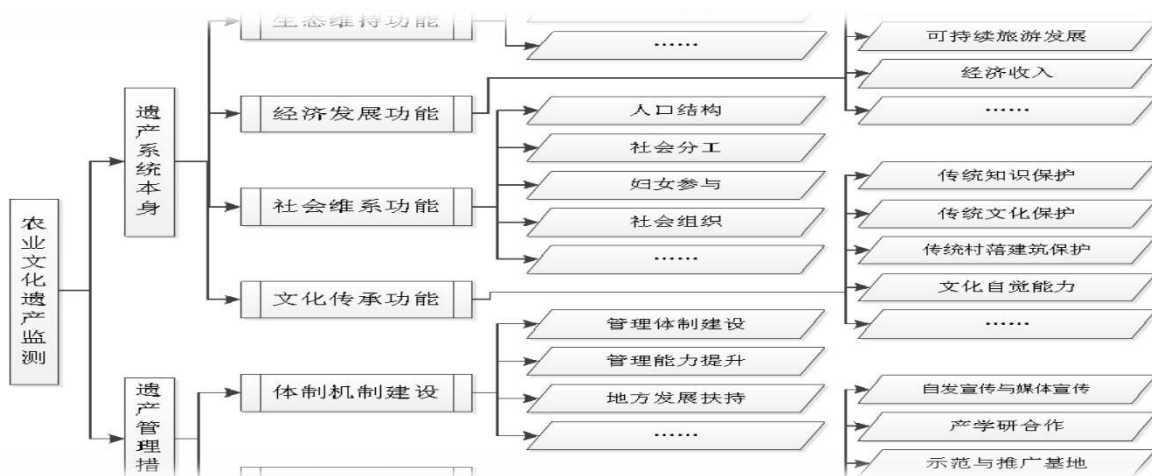
Monitoring and Evaluation



Trinity monitoring and evaluation system

Indicators: Aspects of Ecology, Economy, Society and etc.

总表：中国“全球重要农业文化遗产”特色农产品调查统计表																			
农业文化遗产名称	生产单位/企业名称	产品名称	产品认证情况				2013年销售情况												
			无公害产品	绿色产品	有机产品	地理标志产品	获得省部级(含)	当前产品包装上市	产量(吨)	销量(吨)	销售额(万元)	主要销售地区	出口量(吨)	出口额(万元)	主要出口国家(地)	跨境电商(电视、网络等)	主要营销		
特色产品类型	特色产品数量	企业数量	产品曾经或仍是无	绿色产品	有机产品	地理标志	有机	地理标志	地理标志	地理标志	地理标志	地理标志	地理标志	地理标志	地理标志	地理标志	地理标志	地理标志	
浙江青田稻鱼共生系统	田鱼、田鱼干	5	5	0	2	2	2	2	田鱼、螺	2	田鱼、生	田鱼、生	田鱼、生	田鱼、生	田鱼、生	田鱼、生	田鱼、生	田鱼、生	田鱼、生
云南红河	红米、茶、鸭	3(13)	3	5	2	2	2	2	红米、茶、鸭	3	红米、茶、鸭	红米、茶、鸭	红米、茶、鸭	红米、茶、鸭	红米、茶、鸭	红米、茶、鸭	红米、茶、鸭	红米、茶、鸭	红米、茶、鸭
江西万年	万年贡米	1	1	1	2009年	1	1	1	万年贡米	1	万年贡米	万年贡米	万年贡米	万年贡米	万年贡米	万年贡米	万年贡米	万年贡米	万年贡米
贵州从江	香猪、猕猴桃	6	2	1	1	2	1	2	香猪、猕猴桃	6	香猪、猕猴桃	香猪、猕猴桃	香猪、猕猴桃	香猪、猕猴桃	香猪、猕猴桃	香猪、猕猴桃	香猪、猕猴桃	香猪、猕猴桃	香猪、猕猴桃
内蒙古敖	小米、菜、绿	7种以上	1	2	5	4	1	1	小米、菜、绿	7	小米、菜、绿	小米、菜、绿	小米、菜、绿	小米、菜、绿	小米、菜、绿	小米、菜、绿	小米、菜、绿	小米、菜、绿	小米、菜、绿
河北宣化	牛奶葡萄	1	1	0	0	1	1	1	牛奶葡萄	1	牛奶葡萄	牛奶葡萄	牛奶葡萄	牛奶葡萄	牛奶葡萄	牛奶葡萄	牛奶葡萄	牛奶葡萄	牛奶葡萄
浙江绍兴	香糟	1	2	4	2, 2013年	5	3	3	香糟	1	香糟	香糟	香糟	香糟	香糟	香糟	香糟	香糟	香糟
云南普洱	咖啡、绿茶、普洱茶	7	3	7	12(欧盟有机认证)	9	3	3	咖啡、绿茶、普洱茶	7	咖啡、绿茶、普洱茶	咖啡、绿茶、普洱茶	咖啡、绿茶、普洱茶	咖啡、绿茶、普洱茶	咖啡、绿茶、普洱茶	咖啡、绿茶、普洱茶	咖啡、绿茶、普洱茶	咖啡、绿茶、普洱茶	咖啡、绿茶、普洱茶



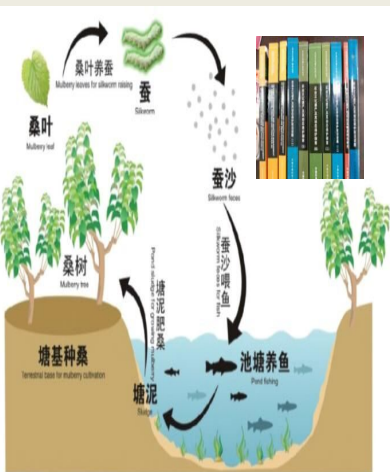
➤ **National Conference on GIAHS to share experiences and discuss future work**



9 GIAHS national conferences

Improve visibility and leverage brand value of GIAHS

--- Focus on key areas



1.

Scientific research

Extract sustainable agricultural development modes and technologies, and promote knowledge-sharing in the academic field

2.

International communication

Increase GIAHS visibility through international platforms

3.

Twinning

Promote twinning between relevant GIAHS sites

4.

Support Agri-cultural events of GIAHS sites

Take advantage of the traditional festivals and Farms harvest festival to showcase GIAHS and attract tourists

5.

Innovation

Improve the efficiency and sustainability of agricultural production of GIAHS sites

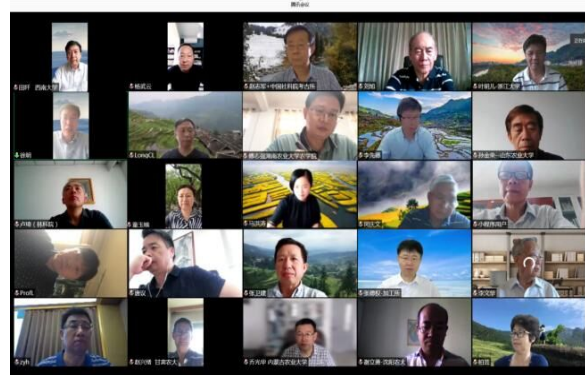
Academic research

➤ China GIAHS/NIAHS Scientific Committee

- Experts with multi-disciplinary backgrounds research areas



**The first GIAHS Scientific committee of MARA
Term:2015-2020**

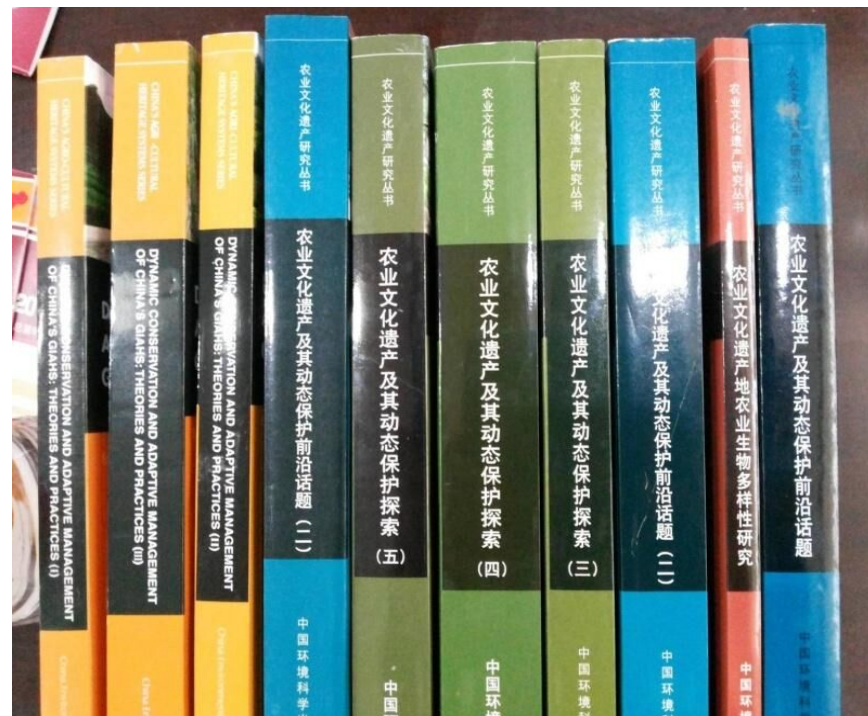


The 2nd GIAHS Scientific committee of MARA 2020-2025



Established the first Heritage Major focusing on GIAHS by Nanjing Agriculture University in 2021

Hundreds volumes of books and academic papers have been published



Ecological mechanisms underlying the sustainability of the agricultural heritage rice–fish coculture system

Jian Xie^a, Liangliang Hu^a, Jianjun Tang^a, Xue Wu^a, Nana Li^a, Yongge Yuan^a, Haishui Yang^a, Jiaen Zhang^b, Shiming Luo^b, and Xin Chen^{a,*}

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Edited by Stephen R. Carpenter, University of Wisconsin, Madison, WI, and approved October 13, 2011 (received for review July 12, 2011)

The productivity of traditional rice–fish co-culture can be increased without increasing nitrogen loss to the environment

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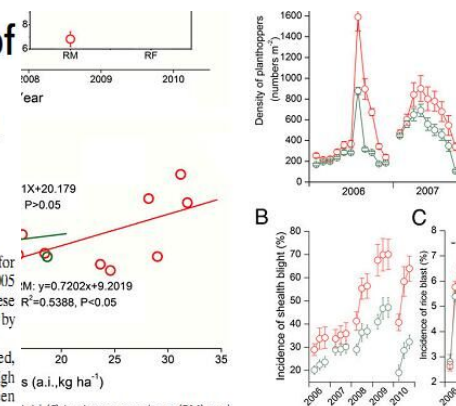
ABSTRACT

Although the traditional rice–fish co-culture system (RF) efficiently provides food security, and does not harm the local environment, it is a small scale and low fish yield. We therefore determined whether fish can increase nitrogen (N) loss into the environment (i.e., the risk

For centuries, traditional agricultural systems have contributed to food and livelihood security throughout the world. Recognizing the ecological legacy in the traditional agricultural systems may help us develop novel sustainable agriculture. We examine how rice–fish coculture (RF), which has been designated a “globally important agricultural heritage system,” has been maintained for over 1,200 y in south China. A field survey demonstrated that although rice yield and rice–yield stability are similar in RF and rice monoculture (RM), RF requires 68% less pesticide and 24% less chemical fertilizer

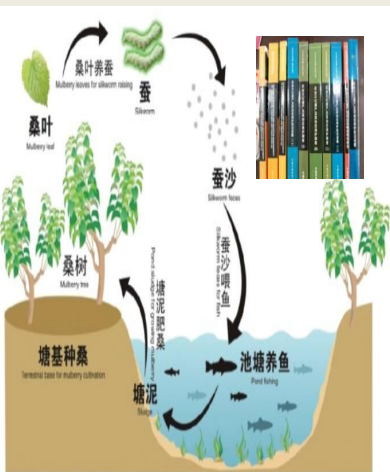
and the Global Environment Facility developed a program for “globally important agricultural heritage systems (GIAHS)” in 2005 (<http://www.fao.org/nr/giahs/giahs-home/en/>) (16). One of these GIAHS is the rice–fish coculture system that has been practiced by farmers in south Zhejiang province, China, for >1,200 y (17).

In this rice–fish coculture system, the fish is an indigenous, red, soft-scaled common carp (*Cyprinus carpio color* var.) with high genetic diversity (18, 19). The rice varieties in the system have been changing over time. In the last decade, high-yielding hybrid rice



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3.

Twinning

Promote twinning between relevant GIAHS sites, introduce e-c

4.

Support Agri-cultural events of GIAHS sites

Take advantage of the traditional festivals and Farms harvest festival to showcase GIAHS and attract tourists

5.

Innovation

Improve the efficiency and sustainability of agricultural production of GIAHS sites

Improve the visibility of GIAHS

--Multi-channel Promotion activities



Album, Brochures, pamphlets and postcards, Posts, Documentary

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SEARCH

The Current Position: Home >> GIAHS in China

Hot topics		
<ul style="list-style-type: none"> CPC No. 1 Document 13th Five-Year Plan Animal Health Bio-technology Agri-product Quality and Safety Featured Agriculture 	<p>Videos of GIAHS in China</p> <p>GIAHS in China: Overview</p> <p>3rd High Level Training and Experience Sharing on GIAHS held in China</p> <p>Across China: Archaeological studies boost millet growth in north China</p> <p>FAO Director-General visits GIAHS site in Zhejiang</p> <p>China's agricultural heritage show: highlight of Milan Expo 2015</p> <p>China's terraced fields apply for FAO initiative</p> <p>2nd GIAHS China Workshop held</p>	<p>2013-07-02</p> <p>2016-11-17</p> <p>2016-10-11</p> <p>2016-06-08</p> <p>2015-06-11</p> <p>2015-04-20</p> <p>2015-04-09</p>



中央电视台十集大型系列节目

农业遗产的启示

天人合一 不仅是一种哲学思想 更是一种科学境界
发现先祖巧思妙用 呈现民族伟大智慧

科技苑

天人合一
不仅是一种哲学思想
更是一种科学境界
发现先祖巧思妙用
呈现民族伟大智慧
CCTV《科技苑》
十集大型系列节目

GIAHS Pavilion



China Agricultural International Exposition



Milan World Expo



World Expo on Digital Agriculture



The 8th China International Food and Ingredients Expo

● Promotion Activity ----- GIAHS and Rural Prosperity

More than 140 million views!!!



In order to highlight the role of GIAHS in advancing rural development, MARA, collaborating with TopBuzz, a Chinese popular social media, carried out an online promotion activity to enhance the social awareness on GIAHS dynamic conservation

World Conference on Globally Important Agricultural Heritage Systems



The World Conference on Globally Important Agricultural Heritage Systems was held in Qingtian, Zhejiang Province in China from 17 to 19 July 2022. The topic of the conference focused on Agricultural Heritage for Rural Prosperity.



The conference invited more than 200 participants from 31 countries and international organizations, related ministries, departments, bureaus and directly affiliated units, agricultural departments of some provinces and cities, governments of GIAHS sites, private sectors and scientific research institutions to acknowledge and discuss the importance of conserving agricultural heritage systems to ensure livelihood and food security for rural communities.



World Conference on Globally Important Agricultural Heritage Systems



Mr. Ryosuke Ogawa, Vice Minister for International Affairs, Ministry of Agriculture, Forestry and Fisheries, Japan



Mr. Chung Hwang-keun, agricultural minister of ROK



Mr. Andrés Alencastre, agricultural minister of Peru



Mr. Laurent Bili, French Ambassador to China



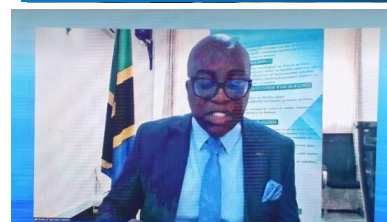
Dr. Qu Dongyu, Director General, FAO



Mr. Ali Nemati, Minister Counsellor of the Iranian Embassy to China



Mr. Thamanat Prompow, agriculture & cooperatives minister of Thailand



Mr. Hussein Mohamed Bashe, agricultural minister of Tanzania



Mr. Stefano Patuanelli, agricultural minister of Italy

Qingtian Initiative

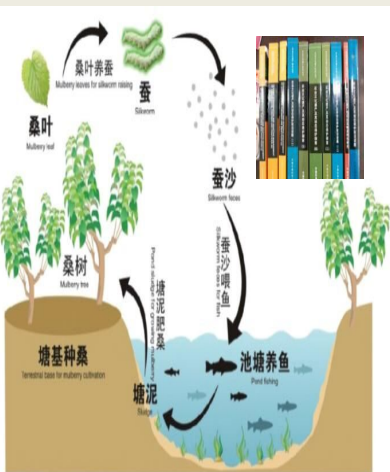


**Qingtian Initiative of the World Conference
on Globally Important Agricultural Heritage
Systems:
*Agricultural Heritage for Rural
Prosperity***

- **Giving priority to conservation**
- **Raising public awareness**
- **Exploring diverse benefits**
- **Fostering mutual learning and cooperation**
- **Bolstering policy support**
- **Focusing on smallholder livelihoods**
- **Boosting contribution to rural development**
- **Mobilizing broad participation**

Improve visibility and leverage brand value of GIAHS

--- Focus on key areas



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International Cooperation Twinning between heritages



Burgundy vineyard system in France



Jasmine and Tea Culture System in in China



Chinampas Agricultural System in Mexico



Xinghua Duotian Agrosystem in China



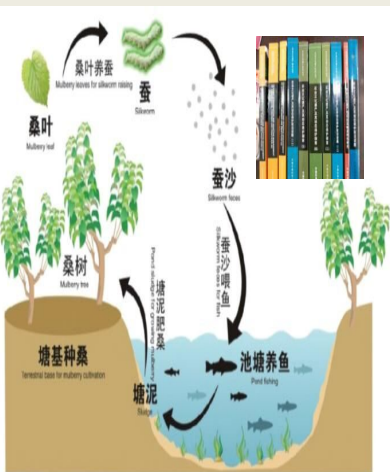
Historical Irrigation System in Spain



Qingtian Rice-Fish Culture System in China

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Support Agri-cultural events of GIAHS sites

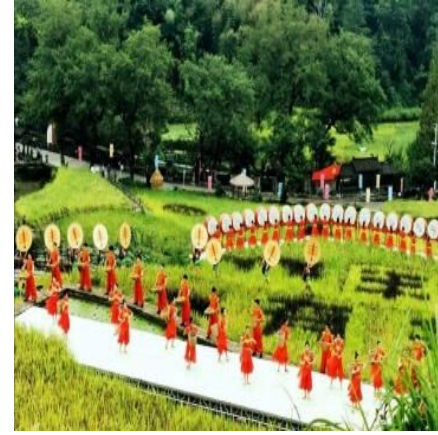
Take advantage of the traditional festivals and Farms harvest festival to showcase GIAHS and attract tourists

5.

Innovation

Improve the efficiency and sustainability of agricultural production of GIAHS sites

Agri-cultural celebrating events of GIAHS sites



Chinese Farmers' Harvest Festival and 15th anniversary of China's first GIAHS site :Qingtian Rice-Fish Culture System, Zhejiang Province, China.



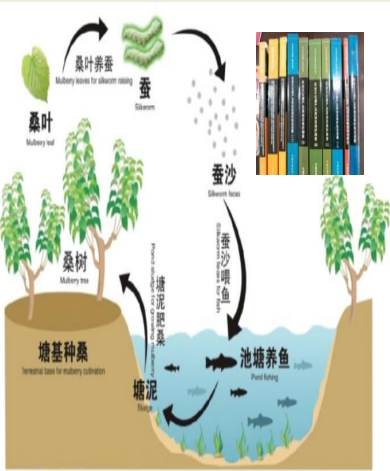
Chinese Huzhou Fish Culture Festival: Huzhou Mulberry-dyke and Fish Pond System, Zhejiang Province,China

Guozhuang Dance Performance Show: Diebu Zhagana Agriculture-Forestry-Animal Husbandry Composite System, Gansu Province

The Original Dong Chorus Show, Congjiang Dong's Rice-Fish-Duck System, Guizhou Province, China

Improve visibility and leverage brand value of GIAHS

--- Focus on key areas



1.

Scientific research

Extract sustainable agricultural development modes and technologies, and promote knowledge-sharing in the academic field

2.

International communication

Increase GIAHS visibility through international platforms

3.

Twinning

Promote twinning between relevant GIAHS sites

4.

Support Agri-cultural events of GIAHS sites

Take advantage of the traditional festivals and Farms harvest festival to showcase GIAHS and attract tourists

5.

Innovation

Improve the efficiency and sustainability of agricultural production of GIAHS sites

Innovation

Qingyuan Forest-Mushroom Co-Culture System



Qingyuan fresh mushroom sashimi



Use dryer to dry mushrooms, with electricity coming from solar power, saving 1520.6 tons of wood and effectively reducing carbon emissions

Longsheng Longji Terraces

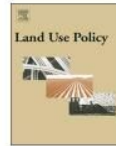
With integrated development of industries

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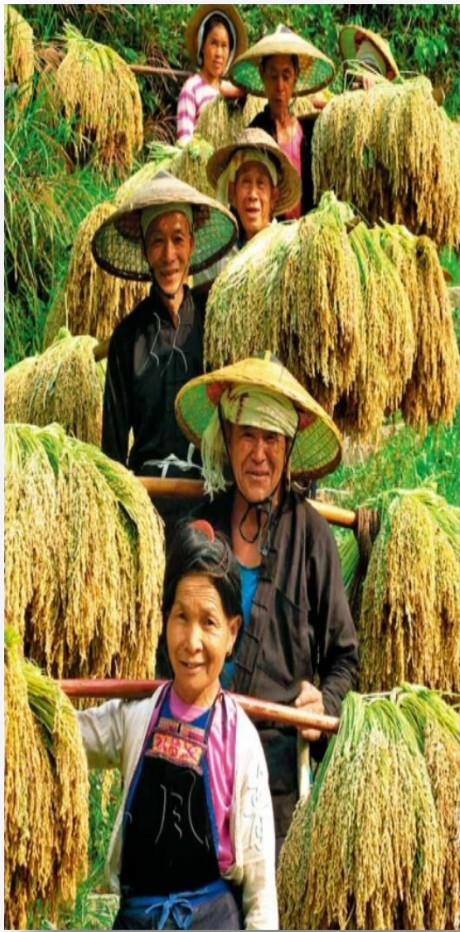
Why are the Longji Terraces in Southwest China maintained well? A conservation mechanism for agricultural landscapes based on agricultural multi-functions developed by multi-stakeholders

Yongxun Zhang^{a,*}, Lulu He^b, Xiande Li^{a,*}, Canqiang Zhang^{c,*}, Chen Qian^{a,d}, Jingdong Li^a, Aiping Zhang^e

Agro-tourism can be developed with the unique natural terraced landscape and associated products, and local farmers can receive dividends by becoming a shareholder



Legacy for the future



Thank you !

