BioOne COMPLETE

Agri-Cultural Heritage: An Interdisciplinary Field with Development Prospects

Author: Qingwen, Min

Source: Journal of Resources and Ecology, 12(4) : 437-443

Published By: Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences

URL: https://doi.org/10.5814/j.issn.1674-764x.2021.04.001

BioOne Complete (complete.BioOne.org) is a full-text database of 200 subscribed and open-access titles in the biological, ecological, and environmental sciences published by nonprofit societies, associations, museums, institutions, and presses.

Your use of this PDF, the BioOne Complete website, and all posted and associated content indicates your acceptance of BioOne's Terms of Use, available at www.bioone.org/terms-of-use.

Usage of BioOne Complete content is strictly limited to personal, educational, and non - commercial use. Commercial inquiries or rights and permissions requests should be directed to the individual publisher as copyright holder.

BioOne sees sustainable scholarly publishing as an inherently collaborative enterprise connecting authors, nonprofit publishers, academic institutions, research libraries, and research funders in the common goal of maximizing access to critical research.

Downloaded From: https://complete.bioone.org/journals/Journal-of-Resources-and-Ecology on 28 Mar 2024
Terms of Use: https://complete.bioone.org/terms-of-use

J. Resour. Ecol. 2021 12(4): 437-443
DOI: 10.5814/j.issn.1674-764x.2021.04.001
www.jorae.cn

Agri-cultural Heritage: An Interdisciplinary Field with Development Prospects

MIN Qingwen[1,2,*]

1. Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences, Beijing 100101, China;
2. University of Chinese Academy of Sciences, Beijing 100049, China

Abstract: Traditional agricultural heritage research has a very long history. Programme on "The conservation and adaptive management of Globally Important Agricultural Heritage Systems (GIAHS)" initiative launched by FAO in 2002, aimed at not only preserving agricultural heritage system, but also applying the principle of dynamic conservation to promote rural development to benefit local community, to assure food security and maintaining the ecosystem. Since then, many more scientists have been enrolled in the new field focusing on the function and value, application and management, conservation and development and other aspects of these traditional agricultural systems which facilitate an emerging cross-discipline. In this paper, based on the concepts and characteristics of GIAHS and China Nationally Important Agricultural Heritage Systems (China-NIAHS), the author specifies that Agri-cultural Heritage is a compound heritage that integrates the characteristics of natural, cultural and intangible cultural heritage, and a typical social-economic-natural complex ecosystem composed of economic, biological, technological, cultural and landscape components. For their conservation and development, the joint efforts of scientists from economics, ecology, geography, history, management sciences, culturology, ethnology, sociology and other subjects are needed. Based on progresses studies and perspectives of the field, the author felt that although a good start of the research on Agri-cultural Heritage has been made, there is still much room for development which show a steady growth trend and suggested 32 priority areas in research; a new subject of Agroheritology could emerge in the near future.

Key words: Agri-cultural Heritage; Globally Important Agricultural Heritage Systems (GIAHS); China Nationally Important Agricultural Heritage Systems (China-NIAHS); Agroheritology

1 Introduction

Research on agricultural heritage including agricultural history, archaeology, etc., has a long history. In addition, subjects such as the conservation of agricultural biodiversity, the discovery and use of traditional eco-agricultural practices, the protection and inheritance of traditional farming culture and rural folk, the protection and utilization of rural landscape, etc. have also attracted many scientists with different academic backgrounds. Programme on "The conservation and adaptive management of Globally Important Agricultural Heritage Systems (GIAHS)" was introduced by the Food and Agriculture Organization of the United Nations (FAO) in 2002, aimed at not only preserving agricultural heritage system, but also applying the principle of dynamic conservation to promote rural development to benefit local community, to assure food security and maintaining the ecosystem.

According to FAO (2002), Globally Important Agricultural Heritage Systems are defined as "Remarkable land use systems and landscapes which are rich in globally significant biological diversity evolving from the co-adaptation of a community with its environment and its needs and aspira-

Received: 2021-04-30 **Accepted:** 2021-05-24
Foundation: Strategic Priority Research Program of the Chinese Academy of Sciences (XDA23100203).
***Corresponding author:** MIN Qingwen, E-mail: minqw@igsnrr.ac.cn

Citation: MIN Qingwen. 2021. Agri-cultural Heritage: An Interdisciplinary Field with Development Prospects. *Journal of Resources and Ecology*, 12(4): 437–443.

Downloaded From: https://complete.bioone.org/journals/Journal-of-Resources-and-Ecology on 28 Mar 2024
Terms of Use: https://complete.bioone.org/terms-of-use

tion for sustainable development." In 2005, the first GIAHS pilot sites were certificated by FAO. 62 GIAHS sites in 22 countries from Asia, Africa, Europe, South America and Latin America were recognized by FAO at the end of May 2021. GIAHS has become an important international programme besides world natural, cultural and intangible cultural heritage. At the same time, more and more scientists enrolled to the new field focusing on the function and value, application and management, conservation and development and other aspects of these traditional agricultural systems.

China is the earliest responder, an active participant, a successful practitioner, an important promoter and a major contributor to the GIAHS Initiative. In 2005, supported by the former Ministry of Agriculture of the People's Republic of China and the Chinese Academy of Sciences, Qingtian Rice-Fish Culture System in Zhejiang Province was certificated as one of the first GIAHS pilot sites. As of now, China has 15 GIAHS sites which ranks the first in the world and officially launched the programme of China Nationally Important Agricultural Heritage Systems (China-NIAHS) in March 2012. So far, the Ministry of Agriculture and Rural Affairs (MARA) has released 118 sites in 5 batches. According to this arrangement, the number of related academic articles and monographs published by Chinese scientists also ranked first in the world which strongly support the exploration and conservation of Agri-cultural Heritages and make important contributions to the development of Agri-cultural Heritage as a new discipline. Based on the research focusing on some important fields such as concept and connotation, features and values, application and management, conservation and development and so forth, it is not difficult to conclude that: a new cross-discipline field is emerging which could be a new subject of Agroheritology in the foreseeable future.

In this paper, based on the concepts and characteristics of GIAHS and China-NIAHS, the author specified that Agri-cultural Heritage is a compound heritage that integrates the characteristics of natural heritage, cultural heritage and intangible cultural heritage, and a typical social-economic-natural complex ecosystem composed of economic, biological, technological, cultural and landscape components. For their conservation and development, the joint efforts of scientists from economics, ecology, geography, history, management sciences, culturology, ethnology, sociology and other subjects. Based on progresses studies and perspectives of the field, the author felt that although a good start of the research on Agri-cultural Heritage has been made, there is still much room for development which show a steady growth trend and suggested 32 priority areas in research (Details see the 4th section).

2 Features of Agri-cultural Heritage: Multidisciplinary intersection and integration

Different from the general world natural and cultural heritages, GIAHS represent a unique subset of agricultural systems, which exemplify customary use of globally significant agricultural biodiversity and merit recognition as a heritage of mankind (FAO, 2002).

Agri-cultural Heritages, the most outstanding representatives are GIAHS sites designated by FAO and Nationally Important Agricultural Heritage Systems (NIAHS) designated by various countries, for example, China-NIAHS sites in China and Korea Important Agricultural Heritage Systems (KIAHS) and Korea Important Fishery Heritage Systems (KIFHS), are socio-ecological production landscapes or Socio-Economic-Natural Complex Ecosystems. Moreover, it has complex self-adaptability and, more importantly, become a unique heritage because of its historical origin and evolution characteristics. It is a compound heritage that integrates the characteristics of natural, cultural and intangible cultural heritage. It is also a typical social-economic-natural complex ecosystem. In short, the systematic heritage consists of some sub-systems which are agri-economic subsystem (including industrial structure, input and output, the farmers' income, etc.), rural ecological subsystem (including natural resources and their management, agri-biodiversity and related biodiversity, environmental quality, ecosystem services, rural ecological landscape, etc.), rural social subsystem (including rural communities, rural governance, folk cultures, religious and believes, etc.), agri-technological subsystem (including ecological-friendly techniques and traditional knowledge in species breeding, farmland management, product storage, product processing, disaster prevention and control, etc.), and agri-historical subsystem (Min, 2020) (including historical origin and evolution of important species, techniques and culture, etc.).

Agri-cultural Heritage is a complex system composed of many important components, such as economic, biological, technological, cultural and landscape are all important components. Undoubtedly, all GIAHS and China-NIAHS sites present five basic features: Firstly, they are still in use by local farmers and can provide the material basis to ensure food and livelihood security and well-being for residents. Secondly, they have varieties of ecosystem services and landscape ecological values, such as genetic resources and biodiversity conservation, water and soil conservation, and so on. Thirdly, they contain the local knowledge and technology of biological resources utilization, agricultural production, water and soil management, landscape conservation, etc. Fourthly, they have profound historical accumulation and rich and plentiful cultural diversity and have the value of cultural inheritance in social organization, spirit, religious belief and arts. Finally, the unique landscapes are formed in

Downloaded From: https://complete.bioone.org/journals/Journal-of-Resources-and-Ecology on 28 Mar 2024
Terms of Use: https://complete.bioone.org/terms-of-use

the long-term human-nature interaction.

Therefore, as a complex heritage, Agri-cultural Heritage does not mean a single factor such as species, technology, culture, and tools but a "complex" agricultural system composed of all these factors; It does not mean the "remains" of the material or immaterial forms created by agricultural production in a certain historical period but the "living" system that still has the production function; It does not mean a general "cultural relic" which completely presents the original state of a certain historical period but a "dynamic" system which constantly evolves with the development of social-economic-natural conditions; It does not built for some immediate need but a "traditional" system that has evolved over time with little or no change in core values; It should not be considered as the "backward" agriculture which is often criticized and required to be reformed but the "exemplary" ingenious agricultural system which contains human ecological wisdom and is of great significance to the sustainable agricultural development and rural revitalization at present and in the future (Min, 2020).

Just for these reason, Agri-culture Heritage has the characteristics of not only natural sciences but also social sciences. It is a cross field between nature and society, history and the future, philosophy and science, and so forth.

One good example is the first GIAHS site in China, namely Qingtian Rice Fish Culture System in Zhejiang Province. In the system, it is easy to find some local and traditional species (Qingtian field fish, etc.), folk customs (fish lantern dance, fish god worship, etc.), eco-agricultural practices (fish raised in paddy field, etc.), local and special foods (sauteed dried fish with rice noodles, etc.), and compound landscape consists of forestry, villages, terraces, rivers.

The other typical example would be Honghe Hani Rice Terraces Systems in Yunnan Province, the only site in China that holds the honors of both a World Cultural Heritage site and a GIAHS site. In the system, you could find some distinctive rice varieties (black rice, red rice, etc.), eco-friendly techniques (terraces management, diseases and pest control, water resources allocation and management, raising fish in paddy field, etc.), special ethnic cultures (worship of the forest, long street banquet, Hani four seasons song, seedling song, Lezuo dance, etc.), traditional settlements (mushroom-shaped house, etc.), and beautiful landscape with forestry, villages, terraces and rivers (Zhang et al., 2016).

These are some characteristics identified from the unique agricultural heritage systems. For their conservation and development, the joint efforts of scientists from economics, ecology, geography, management sciences, culturology, ethnology, sociology and other subjects must be made since almost all Agri-cultural Heritages are located in the regions with the characteristics of fragile ecosystem, underdeveloped economy, rich in eco-cultural resources.

3 Research status: A good start but a lot of room for development

As one of the typical representatives of the "tasks lead discipline", the excavation and conservation of GIAHS/China-NIAHS have drawn the attention of experts in related fields which gradually cultivated into a new discipline Agri-cultural Heritage. As for the general situation of the field, the following two papers can be used for reference.

The first paper was written by Jiao et al. (2020) from Institute of Geographic Sciences and Natural Resources Research (IGSNRR), Chinese Academy of Sciences (CAS), comprehensively sorted out the research situation of Agri-cultural Heritage and its conservation in China from five aspects: 1) Research and development input; 2) Personnel training; 3) Monography and paper publication; 4) Research base; and 5) Academic exchange platform.

By the end of June 2020, there was a total of 436 research projects related to Agri-cultural Heritage in China, including 5 international cooperation projects, 44 projects supported by ministries, 126 projects funded by the National Natural Science Foundation of China (NSFC) or the National Social Science Fund of China (NSSFC), and 261 projects supported by local governments, accounting for 1%, 10%, 29%, and 60%, respectively. A total of 702 papers have been published with funding of these projects. Among them, 45 were funded by international cooperation projects, 127 were funded by ministries-supported projects, 195 were funded by NSFC or NSSFC, and 335 were funded by local governments and other projects, accounting for 6%, 18%, 28%, and 48%, respectively. Since 2005, the number of papers related to Agri-cultural Heritage has increased, and reached to 41 in 2012. Since then, it maintained the annual number of more than 40 and reached to a peak of 128 in 2019. Researchers carried out in-depth studies on ecological compensation for Agri-cultural Heritage conservation, adaptation to extreme climate, sustainable tourism, and ecological footprint.

According to incomplete statistics, a total of 101 monographs related to Agri-cultural Heritage have been published since 2005, including 18 collections of papers, 36 monographs and 47 popular science books. Among them, 91 books were published in Chinese and 10 in English. Since 2010, the publication of monographs on Agri-cultural Heritage began to show a steady upward trend, indicating that the research on Agri-cultural Heritage is gradually increasing the volume, and the research ideas also became increasingly mature and systematic.

Dr. Jiao Wenjun provided another information which was contributed by the Center for Natural and Cultural Heritage (CNACH) of IGSNRR/CAS, the most important technical support unit for the excavation and conservation of Agri-cultural Heritage in China and the principal leader in the field at home and abroad (Jiao et al., 2020). Founded in

Downloaded From: https://complete.bioone.org/journals/Journal-of-Resources-and-Ecology on 28 Mar 2024
Terms of Use: https://complete.bioone.org/terms-of-use

June 2006, CNACH is the earliest institution involved in Agri-cultural Heritage in China. At present, CNACH is also the support unit to the Agricultural Heritage Systems Branch of China Association of Agricultural Science Societies (CAASS) and East Asia Research Association for Agricultural Heritage Systems (ERAHS) in China. The center has made a series of fruitful achievements in basic research and application practices, such as conservation and development strategy and policy, systematic structure, function and value, census, application and designation, monitoring and evaluation, dynamic conservation approaches, international academic exchange, training programmes to local managers and farmers, and creating public awareness.

The other paper was written by Cui et al. (2020) from Nanjing Agricultural University, contains a selection of 240 relevant literatures between 2006 to 2019 for bibliometric and knowledge map analysis based on the CNKI and Web of Science database. The results indicate that China's Agricultural Heritage research experienced three phrases: Preliminary exploration, rapid growth and steady development.

In terms of the authors, Prof. Min Qingwen from IGSNRR/CAS and Prof. Wang Siming and their teams as the leading groups for the research, have achieved the most fruitful results. Main authors are Min Qingwen (70), Wang Siming (23), Sun Yehong (20), Liu Moucheng (19), Zhang Yongxun (17), He Lu (16), Cheng Shengkui (12), Zhang Dan (9), Jiao Wenjun (9), Bai Yanying (8), Li Ming (6), Zhang Canqiang (6), Yuan Zheng (6), Lu Yong (6) etc. The authors came from 98 institutions, and 16 of them have published 4 or more articles. The main institutions are IGSNRR/CAS (123), Nanjing Agricultural University (69), Beijing Union University (16), Ministry of Agriculture and Rural Affairs (11), Renmin University of China (7), Fujian Normal University (7), China Agricultural University (6), Chinese Academy of Agricultural Science (5), Chinese Academy of Forestry (5), Guilin University of Technology (5), Central South University of Forestry and Technology (4), South China Agricultural University (4), Yunnan Agricultural University (4), Sun Yat-sen University (4), Chinese National Academy of Arts (4), Jishou University (4).

240 papers were distributed in 73 journals, and 159 papers were published in journals with 4 or more papers, accounting for 66.3% of the total. The main journals include *Agricultural History of China* (29), *China Agricultural University Journal of Social Sciences Edition* (21), *Resources Science* (20), *World Agriculture* (16), *Chinese Journal of Eco-Agriculture* (16), *Journal of Resources and Ecology* (16), *Agricultural Archaeology* (10).

In terms of research content, these papers mainly focus on conservation and utilization of Agri-cultural Heritage, tourism development, value evaluation and so on. And the emphasis of the case studies is put on Yunnan, Zhejiang, Jiangsu, Guizhou, Guangxi and other provinces with GIAHS and/or China-NIAHS sites.

The two studies are not the same, but there are three relatively consistent conclusions: 1) Research results show a steady growth trend; 2) The research team members are mainly from the IGSNRR/CAS (focusing on geography, ecology and resources) and Nanjing Agricultural University (focusing on agri-history) and other researchers graduated from the two intuitions; 3) The research projects, subjects and the distribution of academic journals have proved the multidisciplinary characteristics of agricultural cultural heritage.

The articles published in this special issue also reflect the cross-disciplinary characteristics. In addition to the articles about the 10-year development review of GIAHS in Japan by Japanese scholars, others involve ecosystem services and ecological compensation, integrated development of tourism and industry, livelihood of community residents, monitoring and effect evaluation of Agri-cultural Heritage conservation, traditional culture and knowledge, etc.

In terms of resource ecology, through theoretical and case analysis, three articles revealed: management strategies of dynamic conservation, integrated protection and adaptive management of the GIAHS/China-NIAHS can contribute to the national park management objectives concerning conservation-compatible livelihood (He et al., 2021); traditional culture and agrobiodiversity in the Agri-cultural Heritages are mutually beneficial and symbiotic (Ma et al., 2021), wild edible plants in the traditional agricultural systems can provide a variety of provisioning services and cultural services (Ding et al., 2021).

With regards to resource and economy, three articles pointed out that: ecological compensation could encourage local farmers to change their planting mode so as to achieve the purpose of improving the ecological benefits of traditional agricultural systems (Liu et al., 2021); the food security in Agri-cultural Heritage sites reflects the fact that the essential grain and nutritional needs of local farmers can be satisfied by the stable, high-quality, and abundant material products provided by the system and the more diversified the economic activities (i.e., engaged in part-time economic activities), the better the food and livelihood security (Yang et al., 2021); and the implementation of GIAHS conservation project could effectively promote traditional species conservation, improve local eco-environment quality, increase ecosystem services, and improve the production and living conditions of local farmers (Wang et al., 2021a).

Concerning resource management, five articles confirmed that: the design and application of the Agri-cultural Heritage routine monitoring reports can not only provide specific guidance for conducting the monitoring, but also lay the foundation for evaluating the effectiveness of Agri-cultural Heritage conservation and management (Jiao et al., 2021); the achievements and problems in Zhejiang Province, one of the most developed regions in China and the largest amount of GIAHS and China-NIAHS sites, can

Downloaded From: https://complete.bioone.org/journals/Journal-of-Resources-and-Ecology on 28 Mar 2024
Terms of Use: https://complete.bioone.org/terms-of-use

provide some reference to other developed areas (Gu et al., 2021); and due to the complex structure and so many elements in a Agri-cultural Heritage site, the definition and identification of key elements (KE) are very important (Li et al., 2021); and local communities, which have been facing extreme climates for a long time in their production and life, and developed some locally applicable traditional knowledge that has played an important role in the adaptation of local communities to extreme climate and disaster risk management (Wang et al., 2021b).

In respect of regional development, three articles mentioned that: tourism plays an important role in the conservation and development of Agri-cultural Heritage sites but the key is to ensure the effective conservation of the heritage and the sustainable development of tourism (Sun et al., 2021); industrial integration development (IID), an effective pathway for Agri-cultural Heritage conservation, must stress the ecological and cultural values of the resources, should be based on local resource advantages, should attach importance to the combination of different policies and coordination between different stakeholders (Zhang and He, 2021); and since there is almost no national subsidy for GIAHS or J-NIAHS, designated sites are expected to secure funding for conservation from their own efforts and a voluntary network of the Japanese GIAHS sites has been active in promoting cooperation on GIAHS conservation (Nagata and Yiu, 2021).

4 Future studies: Calling for more integrated and practice-based research

This special issue has a collection of 13 papers. Apart from one article was written by a Japanese expert, the rest of articles were written by researchers and PhD students at CANCH and collaborators graduated from the center. These articles cover issues from various aspects such as ecological, economic, cultural, policy, management and other issues of Agri-cultural Heritage and its conservation could generally reflect the research level and focus of the team. According to the above mentioned 3 articles, and 18 articles published in the *Special Issue on the 15th Anniversary of GIAHS Conservation in China* in *Chinese Journal of Eco-Agriculture* (2020, Vol. 28, No. 9) as well as other recently published academic journals at home and abroad, we can explore the current level and characteristics of Agri-cultural Heritage research in China.

As for the priority areas for research on Agri-cultural Heritage and its conservation, I set out in an article in 2020 (Min, 2020), and gave a paraphrase to seek expert advice.

First, to identify the special type of Agri-cultural Heritage as the research objective. The following 12 priority areas can be identified: 1) Connotation and classification of Agri-cultural Heritages; 2) The origin of Agri-cultural Heritages and natural and socio-economic conditions; 3) The economic, ecological, technical, cultural and landscape characteristics of the Agri-cultural Heritages; 4) The systematic structure, process and function of Agri-cultural Heritages; 5) The element correlation and key element identification of Agri-cultural Heritages; 6) The stability, resilience and sustainability of Agri-cultural Heritages; 7) The adaptability and thresholds of Agri-cultural Heritages under extreme (natural and man-made) conditions; 8) The endangerment and stress factors of Agri-cultural Heritages; 9) The evolution and driving forces of Agri-cultural Heritages; 10) The spatial differentiation of Agri-cultural Heritages and influencing factors; 11) The historical values and practical significances of Agri-cultural Heritages; 12) The tendency of Agri-cultural Heritages in the context of global change and economic integration.

Second, to support the conservation and development of important Agri-cultural Heritages, or GIAHS/China-NIAHS sites designated by FAO and/or MARA, some "living heritage" which are systematic and have production functions, as the research objective, the following 20 priorities can be identified: 1) The relationship between GIAHS/China-NIAHS conservation and rural revitalization strategy; 2) The relationship between GIAHS/China-NIAHS conservation and Sustainable Development Goals; 3) The contribution of GIAHS/China-NIAHS conservation to the construction of national parks and the natural protected areas system and the protection of tangible and intangible cultural heritage; 4) The methods of Agri-cultural Heritages survey and the key points of protection; 5) The identification standards and application documents of GIAHS/China-NIAHS and master plan for conservation and development; 6) The identification and conservation methods of key elements of GIAHS/China-NIAHS sites; 7) The determination and conservation methods of core areas of GIAHS/China-NIAHS sites; 8) The policy integration and design for the conservation of GIAHS/China-NIAHS; 9) The institutional construction for the conservation of GIAHS/China-NIAHS; 10) The compensation mechanisms for the conservation of GIAHS/China-NIAHS based on ecological and/or cultural values; 11) The theories and methods of brand building of GIAHS/China-NIAHS; 12) The development of distinctive, ecological and functional agri-products of GIAHS/China- NIAHS heritage sites; 13) The conservation of biodiversity and argo-biodiversity of GIAHS/China-NIAHS sites and development of biological resources industry; 14) The tourism potential assessment and sustainable tourism development in GIAHS/China-NIAHS sites; 15) The cultural protection and development of cultural and creative industries in GIAHS/China-NIAHS sites; 16) The integrated industries development mechanism in GIAHS/China-NIAHS sites; 17) The multi-participation and benefit sharing mechanism for GIAHS/China-NIAHS conservation; 18) The monitoring system and effects evaluation of GIAHS/China-NIAHS conservation; 19) The relationship between GIAHS/China-

Downloaded From: https://complete.bioone.org/journals/Journal-of-Resources-and-Ecology on 28 Mar 2024
Terms of Use: https://complete.bioone.org/terms-of-use

NIAHS conservation and important international cooperation strategies; 20) The contribution of GIAHS/China-NIAHS conservation to fulfill the international conventions.

5 Conclusions

In 2005, my tutor, Prof. Li Wenhua (Academician of Chinese Academy of Engineering, Director of CNACH, Chairman of former Steering Committee for FAO/GEF GIAHS project) helped lead me to this field of study, for which I did not pay much attention to it initially. Over 16 years of work, I have gradually obtained some ideas and knowledge as follows:

For researchers, regardless of which research background she/he comes from or what research purpose she/he has, should accurately grasp the concept and understand the connotation of Agri-cultural Heritage, and firmly establish the understanding of the basic characteristics of Agri-cultural Heritage, such as systematization and complexity. On this basis, the characteristics of applied basic subjects and cross-subjects of Agri-cultural Heritage and its conservation can be fully understood. It is important and useful to understand the theories, methods and achievements of agri-history, agri-ecology, agri-economy and rural society, agriculture folk customs, cultural geography, resource management, agri-policy, regional development, natural heritage, cultural heritage, and intangible cultural heritage, rural landscape, rural tourism, cultural and creative industry, biological industry, agricultural products processing, food processing, and so on. The discipline system and research paradigm of Agri-cultural Heritage have been gradually established and constantly improved.

Last but not least, we should be reminded what Dr. Parviz Koohafkan, the father of GIAHS, repeated the same phrase on many occasions: GIAHS is not about the past; GIAHS is about the future (Parviz et al., 2017).

References

Cui F, Shang J Y. 2020. Bibliometrics and knowledge-mapping analysis of progress in agricultural heritage research in China: Based on the China Knowledge Network and Web of Science databases. *Chinese Journal of Eco-Agriculture*, 28(9): 1294–1304. (in Chinese)

Ding L B, He S Y, Min Q W, et al. 2021. Perceptions of local people toward wild edible plant gathering and consumption: Insights from the Q-Method in Hani Terraces. *Journal of Resources and Ecology*, 12(4): 462–470.

FAO. 2002. Report of the FAO workshop of potential stakeholders and steering committee on Globally-Important Ingenious Agricultural Heritage Systems. Rome, Italy: FAO Land and Water Division.

Gu X G, Jiao W J, Sun Y H, et al. 2021. Conservation of the Important Agricultural Heritage Systems in the economically developed area: Experiences, problems and solutions—A case study of Zhejiang Province. *Journal of Resources and Ecology*, 12(4): 513–521.

He S Y, Ding L B, Min Q W. 2021. The role of the Agricultural Heritage System in the construction of China's national park system and optimisation of the protected area system. *Journal of Resources and Ecology*, 12(4): 444–452.

Jiao W J, Cui W C, Zhang B T, et al. 2020. Discussion on structure of science and technology support for the conversation and development of the Important Agricultural Heritage Systems in China. *Study on Natural and Cultural Heritage*, 5(6): 19–28. (in Chinese)

Jiao W J, Wang B J, Sun Y H, et al. 2021. Design and application of the annual report of Globally Important Agricultural Heritage Systems (GIAHS) monitoring. *Journal of Resources and Ecology*, 12(4): 498–512.

Li H Y, He S Y, Ding L B, et al. 2021. Conceptual framework for key element identification in Important Agricultural Heritage Systems (IAHS): Case of Honghe Hani Rice Terraced System in China. *Journal of Resources and Ecology*, 12(4): 522–531.

Liu M C, Bai Y X, Yang L, et al. 2021. Calculation of ecological compensation standards for the Kuan-cheng Chestnut Agroforestry System in Hebei Province. *Journal of Resources and Ecology*, 12(4): 471–479.

Ma N, Yang L, Bai K Y, et al. 2021. The significance of traditional culture for agricultural biodiversity—Experiences from GIAHS. *Journal of Resources and Ecology*, 12(4): 453–461.

Min Q W. 2020. Research priorities, problems and countermeasures of Important Agricultural Heritage Systems and their conservation. *Chinese Journal of Eco-Agriculture*, 28(9): 1285–1293. (in Chinese)

Nagata A, Yiu E. 2021. Ten years of GIAHS development in Japan. *Journal of Resources and Ecology*, 12(4): 567–577.

Parviz K, Miguel A A. 2017. Forgotten Agricultural Heritage: Reconnection food system and sustainable development. London, UK: Routledge.

Sun Y H, Song Y X, Chen Y X, et al. 2021. Sustainable or not? Tourism development in Agricultural Heritage sites. *Journal of Resources and Ecology*, 12(4): 543–554.

Wang B, Sun Y H, Jiao W J. 2021a. Ecological benefit evaluation of Agricultural Heritage System conservation—A case study of the Qingtian Rice-Fish Culture System. *Journal of Resources and Ecology*, 12(4): 489–497.

Wang G P, Yang L, Liu M C, et al. 2021b. The role of local knowledge in the risk management of extreme climates in local communities: A case study in a nomadic GIAHS site. *Journal of Resources and Ecology*, 12(4): 532–542.

Yang L, Yang J H, Jiao W J, et al. 2021. The evaluation of food and livelihood security in a Globally Important Agricultural Heritage Systems (GIAHS) site. *Journal of Resources and Ecology*, 12(4): 480–488.

Zhang Y X, He L L. 2021. Protecting Important Agricultural Heritage Systems (IAHS) by Industrial Integration Development (IID): Practices from China. *Journal of Resources and Ecology*, 12(4): 555–566.

Zhang Y X, Min Q W, Jiao W J, et al. 2016. Values and conservation of Honghe Hani Rice Terraces System as a GIAHS site. *Journal of Resources and Ecology*, 7(3): 197–204.

Downloaded From: https://complete.bioone.org/journals/Journal-of-Resources-and-Ecology on 28 Mar 2024
Terms of Use: https://complete.bioone.org/terms-of-use

农业文化遗产：一个具有良好发展前景的交叉性学科领域

闵庆文 [1,2]

1. 中国科学院地理科学与资源研究所，北京 100101；
2. 中国科学院大学，北京 100049

摘　要：尽管一般意义的农业遗产研究已经有很长时间的历史，但以活态性、系统性和动态性为主要特征的农业文化遗产的发掘、保护、利用、传承起源于联合国粮农组织 2002 年发起的全球重要农业文化遗产（GIAHS）保护倡议。自那以后，越来越多的科学家进入了这一新的领域，并开展了农业文化遗产的功能与价值、申报与管理、保护与发展等方面的研究，逐渐形成了一个交叉性学科领域。本文从 GIAHS 和中国重要农业文化遗产（China-NIAHS）的概念和特点出发，指出：（1）农业文化遗产是一类兼具自然遗产、文化遗产和非物质文化遗产特征的复合性遗产，是由经济、生物、技术、文化、景观等要素组成的一类典型的社会–经济–自然复合生态系统；（2）农业文化遗产的保护与发展，需要来自经济学、生态学、地理学、历史学、管理科学、文化学、民族学、社会学等学科专家的共同努力；（3）农业文化遗产及其保护研究已经有了很好的开端，但仍有很大的发展潜力，当前研究中应当特别关注一些优先领域；（4）不久的将来，一门新的学科——农业文化遗产学（Agroheritology）将会出现。

关键词：农业文化遗产；全球重要农业文化遗产(GIAHS)；中国重要农业文化遗产(China-NIAHS)；农业文化遗产学

Downloaded From: https://complete.bioone.org/journals/Journal-of-Resources-and-Ecology on 28 Mar 2024
Terms of Use: https://complete.bioone.org/terms-of-use