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The Protection of Chinese Traditional Villages and Construction of Beautiful Countryside in the Wuling Mountain Area

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Abstract Chinese traditional villages have the characteristics of both intangible and tangible cultural heritage, and are the largest cultural heritage left by farming civilization in China. Under the synchronous propulsion of new four modernizations and the coordinated development of urban and rural areas, the important issues we face are to protect the Chinese traditional villages, inherit the agricultural heritage, and develop the farming culture resources. There are 60 Chinese traditional villages in the Wuling Mountain area. This article introduces the Chinese traditional villages in the area, analyzes its Chinese traditional village protection and beautiful village construction, and puts forward corresponding recommendations.

Key words Cultural heritage, Chinese traditional village, Beautiful countryside, Agricultural cultural heritage, Poverty alleviation and development, Wuling Mountain area

1 Introduction

The Chinese traditional villages are the villages built before the founding of Republic of China, with no great changes in the building environment, architectural style and village site. The villages have unique customs and can still serve people so far.

Traditional villages have the features of tangible and intangible cultural heritage and in the villages, such two types of heritage depend on each other for existence, and are the biggest agricultural civilization heritage left^[1-4].

The Ministry of Housing and Urban-Rural Development and other departments organized the first thorough survey of traditional villages nationwide. On December 17, 2012, the Ministry of Housing and Urban-Rural Development, the Ministry of Culture and the Ministry of Finance issued *Notice on Releasing the First Batch of Villages Included in the List of Chinese Traditional Villages* [(2012) No. 189], to include a total of 646 villages of important conservation value in the list of Chinese traditional villages.

Meanwhile, the three ministries issued *Guidance on Strengthening the Protection and Development of Traditional Villages* [(2012) No. 184], to lay emphasis on the protection of traditional villages.

During the "Eleventh Five-Year" period, in accordance with the requirements of the Fifth Session of the Sixteenth Central Committee of the Party, many provinces and cities developed plans for building a beautiful countryside and put them into practice, in order to speed up the construction of new socialist countryside, and strive to achieve the production development, affluent life and sound ecology.

In 2008, Anji County in Zhejiang Province formally proposed the "Beautiful Chinese Countryside Plan" and promulgated *Action Outline for Building Beautiful Chinese Countryside*, to build Anji County into the most beautiful countryside in China within about 10 years^[5-6]. Under the synchronous propulsion of new four modernizations and the coordinated development of urban and rural areas, the important issues we face are to protect the Chinese traditional villages, inherit the agricultural heritage, and develop the farming culture resources.

The Wuling Mountain area is one of the main battlefields of poverty alleviation in the next decade^[7-9], and has the advantage of cultural heritage resources^[10] (in particular, traditional villages) and ethnic characteristics^[11]. In view of this, this article will discuss the measures to protect traditional villages and build a beautiful countryside in the Wuling Mountain area.

2 The Chinese traditional villages in the Wuling Mountain area

Out of the existing 646 Chinese traditional villages, 60 are in the Wuling Mountain area. There are 14 Chinese traditional villages in the Guizhou Wuling Mountain area: Shangba Natural Village in Xinglong Community of Nangan Tujia Nationality Township; Yunshe Village in Taiping Tujia & Miao Nationality Township; Masangping Village and Xiangziping Village in Baisha Town; Loushang Village, Gerongcun Gaoqiao Natural Village in Guorong Township; Xiaogaowang Village in Hebachang Township; Huangniao Village, Liaojiatun Village and Wengshuitun Village in Jufeng Gelao & Dong Nationality Township; Gongeao Village in Shigu Gelao & Dong Nationality Township; Dazhai Village in Wude Town; Longtan Village in Daping Town; Manao Village in Suiyang Town.

There are 15 Chinese traditional villages in the Hubei Wuling Mountain area: Gunlongba Village in Cuijiaba Town, Jinlongba Village in Baiguo Township; Tielu Village and Xishan Village in

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Tielu Bai Nationality Township; Wuli Village in Wuli Township; Sanjiaotai Mongolian Village in Zhongying Township; Xing'an Village in Baifusi Town; Lengshuixi Village in Dahe Town; Haiyang Village in Liangwu Township; Shepanxi Village in Daluba District;

Maijiagou Village in Jiamachi Town; Zhongzhaiba Village in Qingping Town; Qingyangba Village in Jiaoyuan Town; Lianghekou Village in Shadaogou Town; Xiangriling Village in Gaojiayan Town.

Table 1 The Chinese traditional villages in the Wuling Mountain area

Provinces and cities	Counties (autonomous counties, cities, districts)	Chinese traditional villages
Guizhou	Dejiang	Shangba Natural Village in Xinglong Community of Nangan Tujia Nationality Township
	Jiangkou	Yunshe Village in Taiping Tujia & Miao Nationality Township
	Shiqian	Masangping Village and Xiangziping Village in Baisha Town; Loushang Village, Gerongcun Gaoqiao Natural Village in Guorong Township; Xiaogaowang Village in Hebachang Township; Huangni'ao Village, Liaojiatun Village and Wengshuitun Village in Jufeng Gelao & Dong Nationality Township; Gongeao Village in Shigu Gelao & Dong Nationality Township; Dazhai Village in Wude Town
	Wuchuan	Longtan Village in Daping Town
	Fenggang	Manao Village in Suiyang Town
Hubei	Enshi	Gunlongba Village in Cuijiaba Town, Jinlongba Village in Baiguo Township
	Hefeng	Tielu Village and Xishan Village in Tielu Bai Nationality Township; Wuli Village in Wuli Township; Sanjiaotai Mongolian Village in Zhongying Township
Hunan	Laifeng	Xing'an Village in Baifusi Town; Lengshuixi Village in Dahe Town
	Lichuan	Haiyang Village in Liangwu Township
	Xianfeng	Shepanxi Village in Daluba District; Maijiagou Village in Jiamachi Town; Zhongzhaiba Village in Qingping Town
	Xuan'en	Qingyangba Village in Jiaoyuan Town; Lianghekou Village in Shadaogou Town
	Changyang	Xiangriling Village in Gaojiayan Town
	Chenxi	Wubaotian Village in Shangpuxi Yao Nationality Township
	Huitong	Gaoyi Village in Gaoyi Township
	Longhui	Chongmudang Village in Huxingshan Yao Nationality Township
	Baojing	Hangsha Village in Hangsha Township; Shoubatong Village in Wanmipo Town
	Fenghuang	Shujiatang Village in A'laying Town; Lahao Village in Duli Township; Laodong Village in Machong Township
	Guzhang	Yanpaixi Village in Gaofeng Township; Laosiyan Village in Hongshilin Town; Longbi Village in Morong Town
	Huayuan	Molao Village in Biancheng Town; Banli Village in Paibi Township
	Jishou	Dehang Village and Zhonghuang Village in Aizhai Town
Chongqing	Longshan	Liuhe Village and Rebala Village in Miaoertan Town
	Yongshun	Shuangfeng Village in Daba Township; Laosicheng Village in Lingxi Town; Xiaoxi Village in Xiaoxi Township
	Anhua	Huangshaping Street in Dongping Town; Maluxi Village in Malu Town
	Yongding	Shiyanping Village in Wangjiaping Township
	Shizhu	Yinxing Village in Jinling Township; Huanglong Village in Shijia Township; Xincheng Village in Yuelai Town
	Xiushan	Minzu Village in Meijiang Town
	Youyang	Dahekou Village in Cangling Town; Hewan Village and Houxi Village in Youshuihe Town; Nanjie Village in Nanyaojie Township

There are 23 Chinese traditional villages in the Hunan Wuling Mountain area: Wubaotian Village in Shangpuxi Yao Nationality Township; Gaoyi Village in Gaoyi Township; Chongmudang Village in Huxingshan Yao Nationality Township; Hangsha Village in Hangsha Township; Shoubatong Village in Wanmipo Town; Shujiatang Village in A'laying Town; Lahao Village in Duli Township; Laodong Village in Machong Township; Yanpaixi Village in Gaofeng Township; Laosiyan Village in Hongshilin Town; Longbi Village in Morong Town; Molao Village in Biancheng Town; Banli Village in Paibi Township; Dehang Village and Zhonghuang Village in Aizhai Town; Liuhe Village and Rebala Village in Miaoertan Town; Shuangfeng Village in Daba Township; Laosicheng Village in Lingxi Town; Xiaoxi Village in Xiaoxi Township; Huangshaping Street in Dongping Town; Maluxi Village in Malu Town; Shiyanping Village in Wangjiaping Township.

There are 8 Chinese traditional villages in the Chongqing

Wuling Mountain area: Yinxing Village in Jinling Township; Huanglong Village in Shijia Township; Xincheng Village in Yuelai Town; Minzu Village in Meijiang Town; Dahekou Village in Cangling Town; Hewan Village and Houxi Village in Youshuihe Town; Nanjie Village in Nanyaojie Township.

3 The measures for the protection of Chinese traditional villages and building of beautiful countryside in the Wuling Mountain area

3.1 Carrying out detailed survey of traditional villages and actively declaring the Chinese traditional villages Out of the 71 counties (cities, autonomous counties, districts) in the Wuling Mountain area, only 27 have Chinese traditional villages: Dejiang County, Jiangkou County, Shiqian County, Wuchuan Gelao & Miao Autonomous County, Fenggang County, Enshi City, Hefeng County, Laifeng County, Lichuan City, Xianfeng County,

Xuan'en County, Changyang Tujia Nationality Autonomous County, Chenxi County, Huitong County, Longhui County, Baojing County, Fenghuang County, Guzhang County, Huayuan County, Jishou City, Longshan County, Yongshun County, Anhua County, Yongding District, Shizhu Tujia Nationality Autonomous County, Xiushan Tujia & Miao Nationality Autonomous County, Youyang Tujia & Miao Nationality Autonomous County.

However, as many as 44 counties (cities, autonomous counties, districts) still have no Chinese traditional villages. The Wuling Mountain area has many traditional villages left by farming civilization, and the survey of traditional villages is still not detailed enough. Therefore, it is necessary to carry out the detailed survey of traditional villages and actively declare the Chinese traditional villages.

3.2 Strengthening the tangible cultural heritage protection of Chinese traditional villages and declaring the famous Chinese historical and cultural villages Since 2003, the Ministry of Housing and Urban-Rural Development and the State Administration of Cultural Heritage have jointly announced a total of 350 famous Chinese historical and cultural towns and villages in five batches, including 181 famous towns and 169 famous villages.

The famous Chinese historical and cultural towns and villages not only have the rural folklore type, traditional culture type and revolutionary history type, but also have ethnic feature type and commercial traffic type, basically reflecting the traditional style of the historical and cultural towns and villages in different regions of

China.

Out of the 169 famous Chinese historical and cultural villages, 7 are in the Wuling Mountain area: Wuchuan Longtan Village, Daping Town, Kelao & Miao Autonomous County; Loushang Village, Guorong Township, Shiqian County; Qingyangba Village, Jiaoyuan Town, Xuan'en County; Lianghekou Village, Shadaogou Town, Xuan'en County; Gunlongba Village, Cuijiaba Town, Enshi City; Wubaotian Village, Shangpuxi Yao Nationality Township, Chenxi County; Gaoyi Village, Gaoyi Township, Huitong County. The 7 famous Chinese historical and cultural villages are all the Chinese traditional villages.

The famous Chinese historical and cultural villages pay more attention to the protection of local architectural and historical landscape. Even people once included some traditional villages in the scope of tangible cultural heritage in the one-sided perspective.

In order to strengthen the protection of tangible cultural heritage of Chinese traditional villages, it is necessary to declare the Chinese historical and cultural villages.

3.3 Tapping the intangible cultural heritage of Chinese traditional villages and building the Chinese folk culture and arts home At the end of 2011, the Ministry of Culture named 528 2011 – 2013 "Chinese Folk Culture and Arts Homes". Among them, 30 "Chinese Folk Culture and Arts Homes" are in the Wuling Mountain area. Out of the 60 Chinese traditional villages in the Wuling Mountain area, 20 are in the "Chinese Folk Culture and Arts Homes" (Table 2).

Table 2 The Chinese traditional villages in the "Chinese Folk Culture and Arts Homes" of the Wuling Mountain area

Province	Chinese Folk Culture and Arts Homes	Folk culture and arts	Chinese traditional villages
Guizhou	Dejiang County	Nuo Opera	Shangba Natural Village in Xinglong Community of Nangan Tujia Nationality Township
Hubei	Changyang Tujia Nationality Autonomous County	Song and Dance	Xiangriling Village in Gaojiayan Town
Hunan	Baifusi Town in Laifeng County	Waving Dance	Xing'an Village in Baifusi Town
	Hulu Town in Baojing County	Miao Drum Dance	Hangsha Village in Hangsha Township; Shoubatong Village in Wanmipo Town
	Morong Town in Guzhang County	Miao Drum Dance	Longbi Village in Morong Town
	Huayuan County	Miao Tapestry	Molao Village in Biancheng Town; Banli Village in Paibi Township
	Longshan County	Tujia Waving Dance	Liuhe Village and Rebala Village in Miaoertan Town
	Huxingshan Yao Nationality Township in Longhui County	Huayao Embroidery	Chongmudang Village in Huxingshan Yao Nationality Township
Chongqing	Daba Township in Yongshun County	Maogusi Dance	Shuangfeng Village in Daba Township
	Shizhu Tujia Nationality Autonomous County	Luoer Melody	Yinxing Village in Jinling Township; Huanglong Village in Shijia Township; Xincheng Village in Yuelai Town
	Xiushan Tujia & Miao Nationality Autonomous County	Xiushan Lantern	Minzu Village in Meijiang Town
	Youyang Tujia & Miao Nationality Autonomous County	Waving Dance	Dahekou Village in Cangling Town; Hewan Village and Houxi Village in Youshuihe Town; Nanjie Village in Nanyaojie Township

The Wuling Mountain area has rich intangible cultural heritage resources^[12]. Out of the 36 items of world intangible cultural heritage in China, 4 are related to the Wuling Mountain area: Dragon Boat Festival; paper cutting; the Dong chorus in Guizhou;

traditional wooden structure building technique. There are also 68 national and 300 provincial-level items of intangible cultural heritage in the Wuling Mountain area.

People once included some traditional villages in the scope of

tangible cultural heritage in the one-sided perspective, resulting in the consequences of merely focusing on the protection of rural architectural and historical landscape, but ignoring the spiritual and cultural connotation of the village. The heritage protection of traditional villages must be the overall protection.

Therefore, we should tap China's intangible cultural heritage of traditional villages and build the Chinese folk culture and arts home.

3.4 Collecting the minority cultural heritage of Chinese traditional villages to carry on with the minority culture The Wuling Mountain area is an ethnic minority area, where Tujia, Miao, Dong, Yao, Bai, Hui, Gelao and other ethnic minorities live together, with rich ethnic cultural heritage resources^[11]. There are 2 autonomous prefectures, 34 autonomous local counties and 18 autonomous counties in the minority autonomous area.

This area has 125 ethnic townships, of which 4 are in the Wuling Mountain area of Hubei, 57 are in the Wuling Mountain area of Hunan, 60 are in the Wuling Mountain area of Guizhou and 4 are in the Wuling Mountain area of Chongqing.

There are 60 Chinese traditional villages in the Wuling Mountain area, and most of them have the ethnic features. Therefore, we should collect the minority cultural heritage of Chinese traditional villages to carry on with the minority culture.

3.5 Arranging the agricultural cultural heritage related to Chinese traditional villages and traditional specialties to enrich the human factors of geographical indications Geographical indications mainly target the intellectual property protection of famous specialty^[13-14]. The specific quality, reputation or other characteristics of traditional geographical indication specialty are mainly determined by the natural factors or human factors in the region. And the human factors just include the traditional agricultural cultural heritage.

Traditional villages are rich in historical information and cultural landscape, so they become the biggest legacy left by the Chinese agricultural civilization^[1-4]. The Wuling Mountain area has the rich geographical indication resources^[12], and the Chinese traditional villages have preserved important agricultural cultural heritage resources.

Therefore, we should arrange the agricultural cultural heritage related to Chinese traditional villages and traditional specialties to enrich the human factors of geographical indications.

3.6 Strengthening the pro-poor tourism of Chinese traditional villages and creating the characteristic tourism villages

The pro-poor tourism is a relatively new model of poverty reduction. By developing the rich tourism resources of the poor areas, it aims to establish the tourism economic entity so that the tourism becomes a regional pillar industry, thereby achieving poverty alleviation for the residents and local finance^[15-16].

The Ministry of Housing and Urban-Rural Development and the National Tourism Administration organized the demonstration work of national characteristic tourism towns (villages), and announced a total of 167 national characteristic landscape tourist

towns and 49 national characteristic landscape tourist villages.

However, the Wuling Mountain area has 3 famous national characteristic landscape tourist towns, but has no famous national characteristic landscape tourist village. Therefore, we should strengthen the pro-poor tourism of the Chinese traditional villages in the Wuling Mountain area, and declare the famous national characteristic landscape tourist villages, to create famous tourist villages.

3.7 Implementing the poverty alleviation based on whole village advancement and protecting the historical information and cultural landscape of the Chinese traditional villages

The poverty alleviation based on whole village advancement is a poverty alleviation and development mode, with the key poverty alleviation villages as the object, increasing poor people's income as the core, improving infrastructure, social welfare cause and the working and living conditions of the masses as the focus, and enhancing the comprehensive economic and social and cultural development as the goal to integrate resources.

The State Council Poverty Alleviation Office and other 11 ministries and commissions have formulated *Twelfth Five-Year Plan for Poverty Alleviation and Development Based on Whole Village Advancement*, and more than 30000 poor villages in China will implement the poverty alleviation and development based on whole village advancement during the Twelfth Five-Year Plan period. Out of the 60 Chinese traditional villages in the Wuling Mountain area, 5 implement the poverty alleviation and development based on whole village advancement: Shoubatong Village, Wanmipo Town, Baojing County; Longbi Village, Morong Town, Guzhang County; Molao Village, Biancheng Town, Huayuan County; Shuangfeng Village, Daba Township, Yongshun County; Xiaoxi Village, Xiaoxi Township.

Therefore, when implementing the poverty alleviation and development based on whole village advancement in the above 5 Chinese traditional villages, it is necessary to protect the historical information and cultural landscape.

3.8 Building the eco-museum of Chinese traditional villages to protect the "active state" of cultural heritage Eco-museum is a new museum that can reflect the development trajectory of human civilization through the comprehensive protection and display of architectural pattern of villages, traditional culture and environment.

Currently there have been eco-museums in 12 forms, successfully protecting the traditional culture of villages of Miao, Dong, Yao, Han and other nationalities.

Since 2008, Anji has started the construction of "Chinese Beautiful Countryside", and now it is building the world's largest eco-museum groups. It is great pioneering work in the Chinese museum building mode, which integrates the natural ecological resources and historical and cultural resources, closely links the valuable collections within the museum and living exhibits outside the museum, and makes the people of the county become the owner of museum.

However, there is not any eco-museum in the Wuling Mountain area. In order to protect and preserve the authenticity, integrity and primitiveness of cultural heritage of ethnic villages in the Wuling Mountain area, it is necessary to establish the eco-museum for the ethnic minorities (especially Tujia, Miao, Dong, Gelao), to protect the "living state" of cultural heritage.

3.9 Fostering the eco-agriculture farmer cooperatives in the Chinese traditional villages to promote the construction of beautiful countryside Farmer cooperatives are the interdependent economic organizations practising democratic management on the basis of the rural household contract management, jointly established by the operators of similar agricultural products or providers and users of similar agricultural production and operation services^[17-18]. On November 18, 2011, the Ministry of Agriculture and other departments jointly issued the list of 6663 demonstration farmer cooperatives.

On July 5, 2012, the Ministry of Agriculture chose 600 farmer cooperatives as "National Demonstration Farmer Cooperatives". For the national demonstration farmer cooperatives, there is a category of other classes, including the cooperatives of eco-agriculture, eco-agriculture sightseeing, rural tourism, farm tourism, agricultural development, and comprehensive agricultural utilization.

There are a total of 182 national demonstration farmer cooperatives in the Wuling Mountain area, but there is no eco-agriculture farmer cooperative.

Therefore, it is necessary to strengthen the support to the cooperatives of eco-agriculture, eco-agriculture sightseeing, and rural tourism of traditional Chinese villages, to play the role of cooperatives in the protection and development of traditional Chinese villages, and promote the construction of the beautiful countryside.

4 Conclusions and recommendations

4.1 Conclusions Currently, there are 646 Chinese traditional villages in China, out of which 60 are in the Wuling Mountain area. Within the Wuling Mountain area, Guizhou, Hubei, Hunan and Chongqing now have 14, 15, 23 and 8 Chinese traditional villages, respectively. Chinese traditional villages have the characteristics of both intangible and tangible cultural heritage, and are the largest cultural heritage left by farming civilization in China.

Under the synchronous propulsion of new four modernizations and the coordinated development of urban and rural areas, the important issues we face are to protect the Chinese traditional villages, inherit the agricultural heritage, and develop the farming culture resources.

4.2 Recommendations Based on the analysis of measures for the protection of Chinese traditional villages and construction of beautiful countryside in the Wuling Mountain area, we make the following recommendations:

(i) Carrying out detailed survey of traditional villages and actively declaring the Chinese traditional villages.

(ii) Strengthening the tangible cultural heritage protection of Chinese traditional villages and declaring the famous Chinese historical and cultural villages.

(iii) Tapping the intangible cultural heritage of Chinese traditional villages and building the Chinese folk culture and arts home.

(iv) Collecting the minority cultural heritage of Chinese traditional villages to carry on with the minority culture.

(v) Arranging the agricultural cultural heritage related to Chinese traditional villages and traditional specialties to enrich the human factors of geographical indications.

(vi) Strengthening the pro-poor tourism of Chinese traditional villages and creating the characteristic tourism villages.

(vii) Implementing the poverty alleviation based on whole village advancement and protecting the historical information and cultural landscape of the Chinese traditional villages.

(viii) Building the eco-museum of Chinese traditional villages to protect the "active state" of cultural heritage.

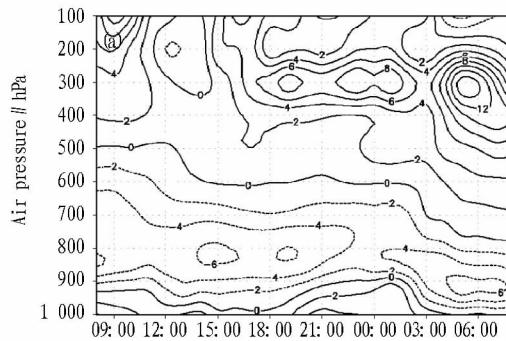
(ix) Fostering the eco-agriculture farmer cooperatives in the Chinese traditional villages to promote the construction of beautiful countryside.

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Due to the rapid development of vertical vorticity, the strong convection occurs, conducive to the occurrence or reinforcement of heavy precipitation. The moist potential vorticity theory well ex-



Note: a, MPV1, unit: PVU; b, θ_{se} , unit: K.

Fig.3 The simulated spatial-temporal evolution of MPV1 and near Nanchang City (28.7°N, 116°E) at 08:00, June 19, 2010

3 Conclusions

In this paper, we carry out the numerical simulation of a torrential rain process in Jiangxi Province, to study the ability of MRM to simulate the storm process. According to numerical simulation and the moist potential vorticity analysis, the results show that the torrential rain is a typical Meiyu storm, and the cold advection after North China vortex and strong southwest air flow in the northwest of subtropical high, making the Meiyu front stable in the northern part of Hunan and Jiangxi province. The rainfall field simulation results of meso-scale rainstorm model are close to the observations, and this model well simulates the location, intensity and center of storm. The distribution of MPV and MPV1 at 850 hPa corresponds to the storm area. The northern storm area is the strong negative value area of moist potential vorticity, and the south is the weak negative value area of moist potential vorticity. The torrential rain occurs mainly in the weak negative value area of MPV. The distribution of moist potential vorticity plays a strong indicative role for the occurrence of severe convective storm and precipitation area.

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plains the formation mechanism of this torrential rain, which is of important significance to the future forecasting of Meiyu front storm.

