

Article

A Study of the Mechanism of Community Participation in Resilient Governance of National Parks: With Wuyishan National Park as a Case

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Abstract: A community can serve as a force that pushes national parks to realize sustainable development, while community participation is critical to the relationship between national park protection and community development. Therefore, the present study explored the community's participation in the construction of Wuyishan National Park (hereinafter referred to as the Park) by means of case analysis and qualitative research. The research outcomes showed that the community's participation was led by the authorities, which is a typical example of "passive participation". In addition, the governing body of the Park and its communities did not form a sound organization that enabled them to manage and protect the Park in concerted efforts. In other words, they did not work well together, and had not yet established an effective community participation mechanism. Moreover, there were three major problems about the community's participation in the Park's governance: The community lacked the ability to take part in it, its participation took limited forms, and it displayed little initiative in the participation. To solve these problems, the present research proposes four mechanisms to improve community participation regarding technological, structural, social, and institutional resilience, i.e., intelligent guidance mechanism, nested organization mechanism, social mobilization mechanism, and institutional guarantee mechanism, respectively.

Keywords: resilient governance; community participation mechanism; Wuyishan National Park



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1. Introduction

Since the first national park was established in 1872, there have been nearly 4000 ones in more than 200 countries across the world [1]. For China, establishing a unified national park system with Chinese characteristics constitutes a major part of its construction of an ecological civilization system. Building such a system embodies China's philosophy of people-centered development and "two mountains" theory (clear waters and lush mountains are invaluable assets, comparable to the gold and silver mountains of legends). China clearly proposes to create a nature-protected area system with national parks as the mainstay. The establishment of such a system necessitates sticking to the ecological red line, heightening the sense of benefit and happiness of the public, and managing various natural, social, and compound risks. In this respect, it is of great significance to implement resilient governance for national parks. During the implementation, the key lies in properly dealing with the relationship between ecological conservation and sustainable livelihood of local residents. Thus, it is crucial to create an effective community participation mechanism.

Due to the impact of the wilderness philosophy, early nature-protected areas were established without full consideration of community livelihood, which means that natural environmental protection and community development were treated differently [2]. As a consequence, community conflicts occurred frequently, such as serious events such as the expulsion of indigenous people [3]. For instance, when Yellowstone National Park,

in the United States, was initially established, compulsory measures were taken to expel the Shawnee Indians, leading to a violent conflict that caused more than 300 people to be killed [4]. Later on, a growing number of administrators and researchers realized that national parks and their surrounding communities are a community of shared life, and community participation is particularly important for national parks governance. Therefore, when national parks are built, it is necessary to reserve space for the survival and development of their surrounding communities, make clear the developmental intensity of both, recognize the community as owner of the parks, and negotiate management contracts with communities [5]. Moreover, a majority of countries believe that communities are more efficient in resource management than official and private departments, for the latter two rely on administrative orders and the market, respectively [6]. Due to the innovation- and participation-oriented government policies on natural resource management across the world, the traditional top-down government-led management is gradually replaced by the participation of private sectors and the public.

Since the 1950s, China has successively established various nature protected areas, such as nature reserves, scenic interest areas, geoparks, wetland parks, forest parks, and source water protection areas. By 2018, China had established a network of diverse nature protected areas that are distributed throughout the country and have complete functions [7]. The nature protected areas are mainly managed in two ways, “enclosed” and “rescued” [8], and both exclude community participation. Some surrounding communities are forced to move out, for which the protected areas become “isolated” without proper management from locals. On the other hand, some are protected before the construction, and the communities are forbidden to use the natural resources within them, which exerts a negative impact on the income of the communities and puts constraints on local development to some extent [9]. Worse still, most nature protected areas are situated in remote areas, so their surrounding communities depend heavily on their natural resources and have limited capacity to develop on their own. In this respect, the geographical factor worsens the conflict between biodiversity conservation and community development.

Regarding ecological protection, national parks are faced with the challenges brought on natural and social risks. Their governance is closely related to the community. Thus, they are likely to realize sustainable development only when the community participates and governance resilience is improved. Thus, attention is worth being paid to what type of community participation mechanism can lead the community to participate in their construction and thus improve their governance efficiency. At present, the research on public management from resilience theory is mostly conducted in the form of theoretical discussions, whereas few conduct case studies. Hence, the present study aims to construct a community participation mechanism in terms of resilience governance, with the Park as a case study, hoping to find a way that promotes the development of both national parks and their surrounding communities.

2. Literature Review

National parks, a type of nature protected area, are often built to ease the environmental pressure caused by the socioeconomic development. They are believed to have three characteristics, namely public welfare, state dominance, and scientificity, of which public welfare is the fundamental one (Chen, Y.H., 2014 [10]; Yang, R., 2017 [11]). It has been long since countries across the world began to set aside an area to protect their ecological environment. As the first national park of the United States, Yellowstone National Park is also regarded as the first nature protected area in the world [12]. Since its establishment in 1872, other countries and regions have set up different kinds of nature protected areas. Particularly, Canada, Australia, and European and African countries have established a large number of national parks. In the meantime, the rapid growth of nature protected areas has resulted in many problems. For instance, when nature protected areas are built, local communities tend to have limited access to their resources, and they are even deprived of the right to manage and utilize the resources. In this context, national park movements have

emerged, enabling people to gradually realize that national parks are not only established to protect ecological diversity, but also the interest of community residents, and their living environment, so community residents should participate in national park governance (Hasan, 2014) [13]. Accordingly, communities are believed to embody the impact of nature conservation and development, while community participation is deemed a new paradigm of the management, protection, and development of national parks. Thus, community participation in national park governance has been receiving growing attention.

National park management is complicated, so it cannot be achieved by a single subject. It necessitates the coordination and cooperation among the stakeholders including the authorities, enterprises, and communities. With national parks developing and their management system improving, public participation has become an important part in their conservation and governance (Héritier, 2010) [14]. An increasing number of people believe that community participation is an effective way to promote the development of both nature protected areas and local stakeholders. Thus, developed countries have been making relevant explorations, such as the joint management of national parks and non-public sectors in the United States (Zhu, H.S.; Chen, W.J. et al., 2013) [15], the Park Advisory Committee (PAC) mechanism in Canada (Huang, X, 2008) [16], and the “decentralized” management of national parks in the United Kingdom (Xu, F.F., 2015) [17].

Moreover, researchers believe that the impact of national parks on community residents should not be overlooked when community participation in national park governance is approached. Shah and Atiqul (2016) pointed out that national parks can bring benefits to locals while their biodiversity is conserved. In particular, the rational development of national parks can bring income to poor households in developing countries [18]. However, Sirima (2016) thinks that the construction of a national park changes the ownership of its resources; in other words, the community loses some resources from which they make a living, and they are negatively impacted thus [19]. As a type of public participation in national park governance, community participation mainly includes involvement in resource conservation (Chapman, 2003) [20], planning, and management (Mblie, 2005; Douglas, 2009) [21,22]. Only with community participation can national parks realize sustainable development. From the perspective of community participation models, communities participate mainly by means of community-based management (i.e., co-management) (Xian, Z., 2010; Tuan, 2016; Yan, S.Y. et al., 2016) [23–25]. In addition, researchers study the community development and management of national parks (Austin et al., 2016) [26], the benefit appeals of communities (Li, S.; Li, B.Y. et al., 2016) [27], and the ways of community participation (Zhang, Z.W.; Yang, R., 2015) [28].

Moreover, researchers have conducted case studies to address the problems about community participation mechanisms. Buta (2014) took the Retezat National Park in Romania as a case study and surveyed its surrounding community residents, finding that it is of great importance to provide the residents with opportunities to participate in community projects, hearings, meetings, and management decisions [29]. Li Ruohui (2016) conducted a case study of Potatso National Park and Meili Snow Mountain National Park, which are inhabited by ethnic minorities in Southwest China. In the research, Li Ruohui proposed constructive suggestions on establishing a participatory ethnic minority community in nature protected areas from a legislative perspective, which provides a new perspective for ethnic minorities’ participation in national park construction [30]. Yang Jinna (2019) conducted a comparative analysis with Kakadu National Park in Australia as a case study, and put forward four systems to improve the mechanism of community participation in Sanjiangyuan (literal meaning: three-river source) National Park in China, namely guidance, organizational, guarantee, and assessment systems [31]. Stoffle, Sewotewa et al. (2020) studied the Arches National Park, Canyonlands National Park, and Hovenweep National Monument, arguing that the sustainable use of native heritage places plays an important role in the management of national parks and we should value the role of indigenous people [32]. He Siyuan (2021) adopted the grounded theory methods and performed the research with the Park as a case study, pointing out that the core of

a community participation mechanism lies in the autonomy, creativity, and adaptability of community management. In addition, He Siyuan advised to promote national park construction in terms of community cognition and participation [33].

The aforementioned investigations provide a theoretical basis for the study of community participation mechanisms. On the other hand, these studies considered the community as a whole without taking situationality and complexity into consideration. Community-based governance of national parks can be achieved through both an administrative system (top-down; external) and community participation (bottom-up; internal). Furthermore, in traditional rural communities, the internal order of the community is an influential and binding force in comparison with institutional (external) systems [34]. During the construction of national parks, the relationship between ecological conservation and community development is constantly changing, so it should be handled properly. Otherwise, social risks will appear. Therefore, the present research aims to provide a new perspective for national park governance by proposing a community participation mechanism based on the concept of resilient governance from four dimensions, namely technological, structural, social, and institutional resilience.

3. Theoretical Analysis of Community Participation in Resilient Governance of National Parks

3.1. Implications of Resilient Governance and Community Participation in National Park Management

3.1.1. Resilient Governance

Resilience derives from the Latin word *resilio*, which means to bounce back. It is often used to describe the ability of an object to spring back into shape, so it is a physics concept [35]. With the rapid development of Western industrialization in the 1850s, resilience was first applied to engineering mechanics, which approached the properties of engineering materials that do not break and fracture easily in a deformation process [36]. Thus, it is called engineering resilience in a broad sense. Later on, the ecologist Holling introduced it into ecology and put forward the concept of “ecological resilience”, which was used in research to discuss the ability of a system to restore its original state [37]. Afterward, researchers used it in human social life, proposing “evolutionary resilience” that focuses on a system’s adaptation, learning, and transition capacity [38]. Seen from the temporal dimension, resilience was extended to engineering, ecological, and evolutionary resilience, respectively, reflecting the responses that humans and society make to adapt to external environmental changes. This provides a new policy-oriented perspective for community development.

Resilient governance is a concept developed based on resilience theory. At the 2002 United Nations (UN) World Summit on Sustainable Development, “resilience” was applied to public governance for the first time. It became a sustainable development goal (SDG) for the UN to “make cities and human settlements inclusive, safe, resilient and sustainable”. Later on, resilient governance used in public administration gradually attracted academic attention. In this field, resilient governance is a new model based on the collective actions of multiple entities, who strive to improve social governance abilities through technology application, structural reform, social integration, and institutional innovation. This way, it is equipped with the ability to resist risks [39]. With regard to its application, resilient governance was mostly used in engineering technology, ecological protection, and urban construction at early stages, but now mainly in resilient cities, resilient communities, and emergency management. In addition to anti-risks, resilient governance tends to achieve innovation in the process of adapting to changes constantly, underlining a proper distance and balance between the state and grassroots power, and the respect for grassroots’ independent choice and the internal order of the grassroots society [40]. In this respect, it makes public administration flexible. As a frontier theory of public administration, resilient governance can be used to explain highly complex social development issues because it enables researchers to propose solutions from multiple perspectives such as systematic thinking, value-oriented public services, and comprehensive response mechanisms.

3.1.2. Community Participation in National Park Governance

Community participation originates from public participation in the West. After examining the American social and political life in the 19th century, de Tocqueville pointed out that the core of a democratic system lies in people's participation in public administration and their equal exercise of political rights [41]. Meanwhile, Dewey (1988) believed that democracy starts from the family, which means the community [42]. As an embodiment of autonomy in Western democratic society, community participation contains the idea of public participation. In the late 1980s, China officially introduced "community participation", which is widely reflected in its urban planning, tourism development, ecological protection, poverty alleviation, etc. As part of the public participation system, community participation has varied definitions in different temporal and spatial environments, so it is historical and dynamic. Community participation not only pays attention to politics, but also to economies (Diamond, 2002) [43]. Economic development changes the relationship between government and society, and encourages and promotes community participation in economic affairs (Tosun, 2000) [44]. The major functions of national parks include conserving ecological environments and natural resources as well as promoting moderate development. Thus, national parks should not only protect the integrity of the ecosystem, but also provide the public with social services such as leisure, tourism, and scientific research. Therefore, national parks involve multiple policy objectives and stakeholders. That means the basic principle of national park management lies in correctly handling the relationship between conservation and development. Community participation in the governance of national parks should not only take into consideration the features of traditional rural communities, but also follow the basic principles of national park governance.

Community participation in national park governance should have the key feature of generic community participation. More importantly, it should retain the attention that national parks protect the integrity and authenticity of natural resources and follow the basic principles of national park conservation and development to comply with the requirements of sustainable development. In other words, it should include two dimensions: (1) National parks and communities should jointly make decisions on biodiversity conservation and supervise their execution, so as to effectively protect natural resources; and (2) when communities take part in conserving natural resources, they make concerted efforts with national parks to attain achievements and share benefits. Therefore, it is defined based on the concepts of community participation in nature reserves proposed by Liu Xia (2011) [45] and Zhang Yan (2015) [46]: Communities within and surrounding a national park enter its decision-making and executive systems with their diverse factors of production and voluntarily participate in the public affairs of the park to manage and protect its resources collaboratively. During this process, the communities endeavor to conserve its biodiversity while taking advantage of its natural resources. This way, they share the benefits from national park construction, and promote their own development as well as the ecological protection of the park.

3.2. Theoretical Agreement between Resilient Governance and Community Participation in National Park Governance

As mentioned above, resilient governance theory provides a new perspective for the sustainable development of ecological systems when national parks are developed. It also offers a new way for community participation in national park construction from ecological conservation, community economic development, and community residents' intrinsic motivation. Resilience is not a simple concept. Instead, it has a systemic framework, which takes various forms, such as physical resilience, economic resilience, structural resilience, social resilience, organizational resilience, technological resilience, institutional resilience, psychological resilience, and cultural resilience [47,48]. In practice, four dimensions of them are widely applied to rural environments and development, namely technological, structural, social, and institutional resilience [39]. National parks are mainly located in remote areas and share some characteristics with rural areas, such as

geographical location and community features. Therefore, this present research discusses community participation from the above four dimensions.

First, technological resilience, an important support for community participation in national park governance, refers to the ability to take advantage of intelligent and information construction to improve the level of public services and apply modern science and technology to solve problems about community participation. Technological resilience can provide information sharing platforms, defect control, and long-term dynamic tracking for the construction of national parks, so it can provide basic support for their vulnerability risk. Thus, technological resilience is of great significance to the dynamic management of national parks. In terms of natural resources governance, technology can bring the following advantages: environmental monitoring, data collection, and scientific guidance, which help realize the all-round governance of natural resource [49]. Therefore, modern technology can provide an important support for national parks managements. In this regard, a full use of modern technologies is conducive to national park governance. For instance, modern technologies help strengthen environmental monitoring by capturing environmental data in real time. Furthermore, environmentally-friendly materials enhance the construction of environmental conservation facilities in national parks, and intelligent technologies help perform scientific research and monitoring.

Secondly, structural resilience provides an important carrier. It refers to the governance structure formed based on community interest by the multiple stakeholders such as national parks and neighboring communities. It centers on the relationship between the participants of community governance, and aims to balance hierarchical and polycentric governance so as to create a cooperative and complementary relationship among them. Polycentric governance, which features decentralization of power, regards community residents and organizations as active agents and empowers them. Structural resilience features a relatively flat governance structure, and it has greater flexibility and synergy than hierarchical governance. Moreover, the construction of national parks involves multiple stakeholders, such as the authorities, enterprises, Non-Governmental Organizations, research institutions, volunteers and community residents. i.e. They play different roles in the governance. To achieve efficacious community participation, decentralized social forces and resources should be integrated to create a networked governance structure and give full play to the synergy of multiple community subjects.

Thirdly, social resilience can serve as an internal driving force to promote community participation in national park governance. It reflects neighboring communities' ability to respond to natural environmental changes with internal resources and forces, which is often presented as "self-organizing ability" [39]. During the participation, social resilience establishes a collaborative network mainly through the accumulation of rural social capital and the trust mechanism of social capital. It can realize social interaction and information sharing as well as promoting community participation in national park governance, thus reducing the impact of national park construction on the normal operation of communities' social system. In brief, social resilience, a mirror of social relations in a community, can not only spur community residents to offer self-help and mutual aid and improve their self-organizing ability, but also assist the government in managing natural resources and improving the governance performance.

Finally, institutional resilience is a strong guarantee for community participation. An institution means "constraints that people design and shape the interaction among them (North, 1990)" [50]. Institutions not only restrict the behavior of social subjects, such as reducing the uncertainty that short-sighted behaviors appear because of economic rationality, but also guide stakeholders on cultivating good ecological literacy and supervise environmental public power to safeguard public interests. In this aspect, resilience governance mainly focuses on the tension of the laws and regulations related to community participation in national park governance, which enables community residents to identify relevant provisions on community development and to produce path dependence on national parks economically to promote the occurrence of community participation. The core

of resilience governance lies in whether there are sound system norms that serve as a basis for community participation, and whether relevant systems can be recognized, observed and implemented by community residents.

4. A Case Study of Wuyishan National Park

4.1. Brief Introduction to Wuyishan National Park

Wuyishan National Park (117°24'13"–117°59'19" E and 27°31'20"–27°55'49" N) is mainly located in the north of the Wuyi Mountains, Fujian Province, China. Its administrative region covers four counties (cities or districts) in Wuyishan City, Guangze County, and Jianyang District, which includes nine towns (or subdistricts), 29 administrative villages, two forest farms, one farm, and one reservoir. Among them, four towns (or subdistricts) and 16 administrative villages fall within Wuyishan City, including Wuyishan National Nature Reserve, Wuyishan National Scenic Spot, Jiuquxi Upstream Protected Area, Tianchi National Forest Park and surrounding public welfare forests, and part of Shaowu state-owned forest farm. It covers a total area of 1001.41 km².

In 2015, 13 Chinese departments, including the National Development and Reform Commission, jointly launched pilot projects for the national park system, and Wuyi Mountain was identified as one of them. The Park, one of the first pilot areas of the national park system in China, has been inscribed on the World Cultural Heritage List. It retains the most complete, typical, and largest mid-subtropical forest ecosystem at the same latitude throughout the world. Its collective land accounts for 66.6% of the total planned area with a population of more than 30,000. Community residents are highly dependent on the land and the development environment for the community is complex. In this respect, it is of practical significance to discuss the community participation in Wuyishan National Park governance.

4.2. Basic Information about Wuyishan National Park Community

Wuyishan National Park involves 16 villages within the administrative division of Wuyishan City (please refer to Table 1 for details). It has a high population density with a permanent resident population of more than 27,000. Except for Xingcun Village where the market town is located, other villages in it all hold rural household registrations. Its major industries include tea, tourism, and agriculture, and almost all the villages depend on tea to make a livelihood, except Da'an and Nanyuanling Villages. Thus, tea is a pillar industry for most of its villages, so they are heavily dependent on land resources. In terms of their industrial structure, 7 out of 16 villages (i.e., Huangbai, Tianxin, Chaoyang, Chengdun, Hongxing, Qianlan, and Zhoutou Villages) only have one leading industry, i.e., tea; their industrial structure is simple. As for Gongguan, Lixin, and Tongmu Villages, they also have the moso bamboo industry, but the annual output value of the industry accounts for a small proportion of the total, so the importance of the industry is far less considerable than that of tea for the above three villages. Worse still, their moso bamboo industry is in decline. Huangcun Village also has nursery and tobacco growing industries in addition to tea, but its leading industries all fall into the category of planting, so it has a great demand for land resources.

Among these villages, Tongmu Village has the most special geographical location. It was the center of the nature reserve and now is the core area of the Park. Its community residents have experienced a rise in the demand for the development of ecotourism, but the management system of the Park prevents its ecotourism industry from developing at a rapid pace. Da'an Village, however, has the moso bamboo industry but does not grow tea; it gives full play to its historical and cultural advantages to develop the red tourism industry. Jiangxi Village extends its industrial chain and develops the senior care industry. Moreover, Nanyuanling Village benefits from its geographical location. As a surrounding community of the Park, it has flexible land development rights, and meets few constraints on personnel access and industrial operation in the surrounding pilot area. It focuses on tourism, and derives income from home stay operation and catering services. In brief, the

surrounding communities have witnessed an initial transition from heavy dependence on natural resources to other production and operation modes.

Table 1. Overview of the Communities in Wuyishan National Park.

| Village | Resident Population | Leading Industry | Annual Output Value (10,000 Yuan) | PCDI for Farmers Yuan | Collective Economic Income for Villages 10,000 Yuan |
|-------------|---------------------|------------------|-----------------------------------|-----------------------|---|
| Gongguan | 2202 | Tea | 1000 | | |
| | | Moso bamboo | 60 | 14,249 | 362.34 |
| Huangbai | 2432 | Tea | 5000 | 11,657 | 148.85 |
| Tianxin | 2050 | Tea | — | 13,256 | 248.05 |
| Caodun | 2188 | Tea | 1000 | 16,121 | 97.20 |
| Chaoyang | 1095 | Tea | 3652.26 | 17,000 | 39.43 |
| Chengdun | 826 | Tea | 4706.5 | 19,000 | 127.00 |
| Hongxing | 1450 | Tea | 3000 | 17,293 | 92.00 |
| | | Tea | 8400 | | |
| Huangcun | 2765 | Tobacco | 87.6 | 18,337 | 50.97 |
| | | Plant nursery | 100 | | |
| | | Tea | 600 | | |
| Lixin | 870 | Moso bamboo | 120 | 12,192 | 28.50 |
| Qianlan | 639 | Tea | 260 | 18,000 | 68.00 |
| | | Tea | 20,000 | | |
| Tongmu | 1964 | Moso bamboo | 380 | 22,900 | 126.32 |
| | | Tourism | 1182 | | |
| | | Tea | 11,016 | | |
| Xingcun | 3868 | Tourism | 6909 | 19,115 | 644.89 |
| Zhoutou | 938 | Tea | 1192 | 14,939 | 29.37 |
| | | Tea | 600 | | |
| Nanyuanling | 936 | Tourism | 3600 | 38,000 | 122.09 |
| | | Moso bamboo | 705 | | |
| Da'an | 2261 | Tourism | 45 | 10,800 | 72.25 |
| | | Tea | 2500 | | |
| Jiangxi | 1380 | Senior care | 500 | 21,200 | 23.74 |

Source: Survey of the research team. Note: — means missing data because of statistical methods and dimensions.

Furthermore, its community development involves another two major subjects: tourism enterprises and the government. The three stakeholders have different considerations for environmental and social justice in community development. Communities tend to promote the sustainable development of family livelihood by promoting the natural resources industry, while tourism enterprises expect to make profits from the mountains and waters of the Park. The government aims to reap economic and environmental benefits simultaneously: it hopes to promote the local gross domestic product (GDP) through tourism development, and protect the natural environment and human ecology when ecotourism in the Park is developed.

4.3. Analysis of the Park Management System

Regarding the management system of the Park, the authorities issued two notices in March 2017 and September 2019, respectively: Notice on the Main Responsibilities and Institutional Establishment of Wuyishan National Park Administration ([2017] Minweibian No. 5) and Notice on Adjusting and Improving the Management System of Wuyishan National Park ([2019] Minweibianban No. 341). The notices announced that a Wuyishan National Park management organization be established, which would be directly governed under the provincial government. In addition, the Park was managed by the Forestry Department of Fujian Province during the transition period.

First, the Wuyishan National Park Administration was founded. The Wuyishan National Park Administration is entitled to 30 budgeted posts. It shoulders responsibilities that include the conservation of natural and human resources and natural environment

within the Park. In addition, it is composed of five affiliated departments, such as the Administrative Office, the Department of Policies and Regulations, the Financial Planning Department, the Department of Ecological Conservation, and the Coordination Department. Second, the Wuyishan National Park Law Enforcement Brigade was formed. It consists of six law enforcement units, which are based at the towns or villages of Xingcun, Wuyi, Yangzhuang, Huangkeng, Zhaili, and Shuibe. It is entitled to 70 officially budgeted posts. It is mainly responsible for the administrative law enforcement of the Park. Third, the Wuyishan National Park Scientific Research Monitoring Center was established. Also as the Wuyishan Biodiversity Research Center of the Fujian Province, the monitoring center is mainly responsible for scientific research, environmental monitoring, scientific cooperation, popular science education, and publicity and promotion. It is entitled to 20 officially budgeted posts. Fourth, national park management stations were set up. The management stations are distributed in six towns or subdistricts which were set as pilot areas. The heads of the stations are concurrently held by the heads of the towns or subdistricts, who shall obtain the consent of the Park when they are transferred or promoted. The stations and law enforcement units work together and share the personnel. The management stations are responsible for the conservation of natural and human resources as well as the natural environment in their jurisdiction and administrative law enforcement.

The previous management organization of the Park was reorganized and merged into the Wuyishan National Park Administration, the sole management unit of the Park at present. All personnel are in place. The administration and the government have formed a management mode that enables them to cooperate in an efficient manner, which not only improves the management structure of the Park but also integrates the resources and forces of the local government. Moreover, the Park set up a joint protection committee between the Fujian and Jiangxi Provinces; it is an inter-provincial protection mechanism that facilitates coordination and collaboration between the two provinces in which the Park is situated [51]. Nonetheless, the management system of the Park is government led. It has not opened up participation channels to social forces. It has not established the departments dedicated to community management, either. Furthermore, there are insufficient professionals in its community management, and some of its community affairs are left unattended.

4.4. Problems about Community Participation in the Park Management

The research team surveyed the Park from November 2020 to April 2021 in terms of its history and community participation in its development. The survey found three different kinds of government–community relationships within the Park, namely a government-led relationship, exemplified by the Wuyishan National Nature Reserve, a tourism-enterprise-led relationship, illustrated by the Wuyishan National Scenic Area, and a government-led relationship, of which the Jiuquxi Upstream Protected Area is representative [52]. The foregoing relationships weakened the impact of the communities on the development of the Park.

Although the Wuyishan National Park Administration had been founded, it did not create a joint force from the stakeholders. After its establishment, the Park was still managed the way scenic areas and nature reserves are governed. Particularly, its community residents carried out livelihood activities as before. The interview with the residents found that their participation was economically oriented; they were only willing to take part in the Park's construction when they deemed it beneficial to them. Thus, community management of the Park was often completed through legislation; the residents were forced to abide by national laws and regulations. That occurred partially because the community residents did not have the professional knowledge and literacy that the community management of national parks necessitates, which decreased their community participation to some extent. Most importantly, the lack of departments dedicated to community management resulted in limited community participation channels. In most cases, they participated passively. To sum up, the survey revealed three major problems about community participation in the

Park management: the community lacked the ability to participate, its participation took limited forms, and it displayed little initiative in the participation.

4.4.1. Lacking the Ability to Participate

Due to the “Guanbenwei” (i.e., bureaucracy-oriented tradition, or officialdom-centered style of administration) formed in the farming culture of China, the stakeholders obeyed social authority most of the time. Compared with the coercive force of a system, they were often placed in a disadvantaged position in the face of laws and regulations, public order and good customs, and social norms. Moreover, community residents often live in an enclosed environment and receive a low level of education, so they are not able to fully understand national parks as a nature protected area. Developing a national park, conserving its biodiversity, and balancing the interests of involved stakeholders require a high level of knowledge and capacity, whereas China’s farming culture handed down from generation to generation does not suffice. As a result, the community residents of the Park lacked the ability to participate in its management. In addition, national parks are still new to China, so the country does not have much experience of community construction and has no substantive guidance on community development. Consequently, its community residents do not hold reasonable expectations for the sustainability of national parks. In this context, they are very likely to display short-sighted behavior.

4.4.2. Community Participation Taking Limited Forms

Irrespective of the way a community participates in national park governance (government-led or tourism-enterprise-led), the community is often regarded as the one to be managed, so its role is not valued. National park development brought national financial transfer payment and non-agricultural employment, which provided community residents with more choices to make a living. However, community development policies were mainly “top-down” institutional arrangements, which shared some characteristics of the ones in a planned economy era. Thus, the residents had a small community voice. The survey revealed that the communication between the management of the Park and the communities was only limited to informal forums.

Worse still, only a small number of residents participated in the forums because there were no proper processes and procedures to select forum participants. That means some community residents were not able to make their voice heard, and the sample of selected forum participants might not be representative. Moreover, the community residents were not the center of the forum, and their participation effectiveness was low because the authorities had institutional preferences. In addition, the management and community residents often had different value orientations; community residents were concerned about how to maintain their livelihood, whereas national park managers paid close attention to ecological conservation. In this respect, the two sides did not reach a consensus on the balance between environmental protection and economic development.

4.4.3. Low Initiative in Community Participation

The management of community participation mainly depended on project funds. Due to the division of “financial power” and “administrative power” as well as the particularity of the project, many projects do not conform with the actual situations of the community, since they do not bring real benefits to community residents. The community projects for Wuyishan National Park mainly included ecological tea garden transformation, agricultural technology training, fire prevention training, public facilities construction, and industrial support. Taking the ecological tea garden transformation as an example, the project was only carried out in Wuyishan National Natural Reserve and Wuyishan National Scenic Interest Areas, with the Jiuquxi Upstream Protected Area being excluded. The Wuyishan National Natural Reserve motivated community residents to take part in the conservation of the Park, while the Wuyishan National Scenic Spot pushed the communities to participate through “agreements”. It can be seen that the community participation was

greatly impacted by the policies, which were led by the management of the Park. In brief, community residents were involved passively; they did not take initiative in it.

5. Conclusions and Suggestions

5.1. Conclusions and Implications

Led by the authorities, community participation in Wuyishan National Park governance was “passive”. The organization that connects the Park and the community was not sound enough, and an effective community participation mechanism was not established. As a consequence, the communities and the governing body of the Park did not work collaboratively well. There is a large number of aborigines in Wuyishan National Park, so its neighboring community residents mainly rely on the tea industry to make a living. In other words, they are highly dependent on natural resources. Furthermore, the land problems left over from history further exacerbate the conflict between community development and ecological conservation. With ecological supervision tightening, natural resources that the communities are allowed to use are in decline, which leads to immobility of existing resource holders. In particular, tea leaves have a high economic value, so the strict ecological supervision will further reinforce the wealth inequality between those with and without tea mountains, which breeds unstable factors and increases social risks.

In this respect, resilient governance helps improve the social risk resistance capacity through public administration, for which the resultant risks can be reduced. National parks are recognized as public goods, so their land and natural resources are owned by people. However, their land is mainly divided into two categories: universal and collective ownership. In theory, national parks are state-owned properties, but they are owned collectively and managed individually in reality. This conflict of property rights is reflected in farmers’ livelihood, which will further aggravate social risks. Moreover, resilient governance boasts of network coordination and integrity mechanisms, which provide a new perspective for the mechanism for community participation in national park governance.

5.2. Suggestions

Resilient governance is related to the adjustment of governance structures, a dynamic regulation between “rigidity” and “flexibility”. That can motivate the market and social subjects to participate, which is highly beneficial to the construction of a community participation mechanism. Community participation, an approach that achieves effective management of national parks, has been institutionalized in the management of nature protected areas. The community participation mechanism means to clarify how to organize, promote, and ensure the participation of neighboring communities in national park governance. Therefore, the discussion about the community participation mechanism from technological, structural, social, and institutional resilience is conducive to promoting the resilient governance of national parks. That can not only solve the practical problems about national park governance, but also advance the modernization of natural resource governance capacity. This is of great value for the improvement of community participation and the construction of national parks.

5.2.1. Building an Intelligent Guidance Mechanism

With science and technology continuously integrating with society, they can be used in natural resource governance. In the process of national park construction, they can provide following functions: environmental supervision, scientific research and monitoring, education, and publicity. Thus, they are conducive to improving scientific park management. First, modern media publicity based on the philosophy “innovation, coordination, green, openness and sharing” can be used to enhance the communities’ understanding for the Park, create a good public opinion atmosphere, and stimulate community participation. It is advised to generate publicity of the nature protected areas with national parks as the mainstay by means of the media such as the radio, television, and Internet. Second, com-

munity residents are guided on recognizing national parks as the home that they rely on for livelihood generation after generation, rather than as merely parks. To shift their awareness, regularly scientific and educational activities can be organized for community residents, and universities and institutions are advised to be supported to carry out field research and surveys. Community residents will improve their ability to participate in national park management due to ecological knowledge publicity and management knowledge training. This way, community residents will be guided on building a community of shared life, in which mountain, water, forest, field, lake, grass, and humankind are all included.

5.2.2. Building a Nested Organization Mechanism

From the perspective of structural resilience, the management system of national parks is advised to include both vertical and horizontal systems. The vertical one involves central and local authorities, while the horizontal one consists of multiple departments of the same level. It is a system composed of organizations at multiple levels and in different fields, involving a number of stakeholders. In the current system, the community comprised of indigenous people is an organization that has a weak voice.

A nested organization mechanism is dedicated to coordinating the relationship among the National Park Administration, the communities, and community participation subjects, ensuring that the rights and interests of community residents conform to the national park management system that consists of the authorities, enterprises, communities, research institutions, and social organizations. Advanced experience from nature protected areas across the world and the actual situation of national parks in China indicate that the management system of national parks should highlight the role of community residents. First, grassroots party branches are advised to give full play to the leading role of party members in the community, who are responsible for timely reporting the public opinion of community residents and their development needs. Moreover, community residents should have the priority to be hired as national park staff who assist in dealing with the affairs about ecological conservation, production, living, cultural tradition, and collective income. Meanwhile, organizations such as community committees and groups should be established to optimize the participant structure and improve the organization of community participation. This way, a resilient organization system is expected to be established.

5.2.3. Building a Social Mobilization Mechanism

Social resilience reflects the ability to deal with environmental problems by relying on the internal forces of communities, such as community residents, autonomous organizations, and social organizations. Social capital, a major factor that affects social resilience, is a resource based on social relations. It plays an important role in reaching social consensus and reducing communication costs. Thus, it is an indispensable social resource for community participation in national park governance. In this respect, social resilience should be actively cultivated, and environmental protection publicity is advised to be strengthened. In this way, community residents are expected to raise their awareness of environmental protection and have more ways to participate in national park governance. In turn, community residents will identify with national parks, and the social resilience of national park governance will be improved. Therefore, community residents will have stronger motivation to participate in the governance. In this process, it is suggested that rural elites be encouraged to mobilize other residents to take part in the governance via political, organizational, social, and emotional mobilization.

5.2.4. Building an Institutional Guarantee Mechanism

An institution can not only regulate and restrict the behavior of stakeholders, but also realize the orderly management of society. In this aspect, institutions are of great significance to sustainable community involvement. The core of institutional resilience lies in strengthening a franchise system and a co-management system that national parks

and communities manage related affairs in concerted efforts. The systems will not only ensure the community rights and interests of indigenous people in national parks, but also increase the economic income of community residents with the ecological authenticity and integrity of national parks guaranteed. The franchise system aims to explore the way of separating management and administrative rights, encouraging community residents to take advantage of franchises and participate in running national parks, such as ecological experiencing, environmental education, and ecological industry. Moreover, it is suggested that operational licenses and capital feedback be preferential to community residents to ensure that the farmers whose livelihoods are affected because of ecological conservation have a smooth transition, so the resultant conflicts can be eased. The co-management system ensures the right of community residents to take part and voice their opinion in the planning of, and decision-making on, national park development. The empowerment will enhance their sense of identity and belonging, thus improving the effectiveness of their participation. In brief, these two systems are conducive to maintaining the relationship between the authorities and local residents in terms of local identity and dependence, thus promoting the institutionalization of the community participation mechanism.

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