

# Research on Support Route and Mechanism of Meteorological Service for Rural Tourism in Hainan Province

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## ABSTRACT

From the perspective of global tourism, the support route of meteorological service for rural tourism is discussed in terms of technology, channel and information. Meanwhile, the tourism integration mechanism of meteorological service in rural areas is analysed from the standpoints of government guidance, technological innovation, market competition and resource sharing. Thus, it effectively analyses the current role of subject and object in meteorological service for rural tourism. Importantly, it not only helps meteorological departments to improve their meteorological service methods, but also promotes the healthy and stable development of rural tourism.

**Keywords:** *Global tourism, meteorological service, rural tourism, support route, integration mechanism*

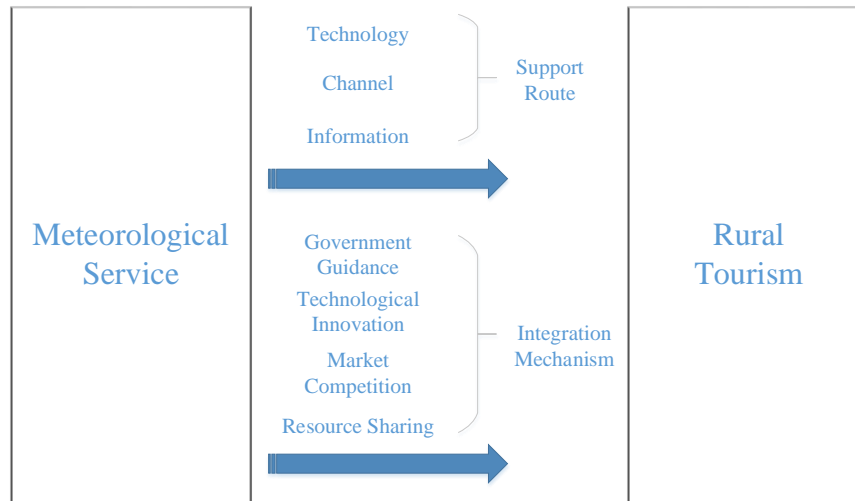
## 1. INTRODUCTION

With the advent of the global tourism era, tourists pay more attention to the experience of the whole process of tourism [1,2]. Therefore, it is particularly important to strengthen the integration of resources such as beautiful scene, delicious food, folk customs and local life. In order to promote the sustainable development of rural tourism, it is necessary to continue to promote rural areas in accordance with the development of the global tourism era. The integration of tourism and other tour forms will gradually expand and extend the rural tourism industry chain, promote the cross-development of rural tourism and agriculture, handicrafts, and service industries, and comprehensively enhance the vitality of rural tourism economy [3,4].

Recently, the strategy of revitalizing rural areas has been launched nationwide under the model of global tourism. In accordance with the general requirements of industrial prosperity, ecological livability, rural civilization, effective governance, and affluent living, it can establish and improve urban-rural integration development institutional mechanisms and policy systems to accelerate the modernization of agriculture and rural areas. In the implementation course of the "Village Revitalization Strategy", rural tourism will play a major role. For Hainan, as a major tourism province, in this opportunity, there are the three major roles, i.e., ecological province, special economic zone, and international tourism island, which will be fully utilized to create, build beautiful villages, and tackle poverty. Also, promote the construction of leisure agriculture and rural tourism. Rural tourism started late in

Hainan. With the strong support of the government and the guidance of professionals, as well as the large amount of capital investment, the construction of rural ecological civilization and rural tourism have developed rapidly. However, Hainan Province is located in a tropical region and belongs to the tropical monsoon oceanic climate. It has the most precious tropical tourism resources in China. Meanwhile, it has rich and unique climate resources and is a famous tropical tourist attraction in the world. As a coastal tourist area, the foundation and advantages of Hainan's tourism development are its sunshine, sea, beach and unique climate resources. Compared with other industries, Hainan tourism is more susceptible to climate change. Therefore, in promoting the development of rural tourism, it is also necessary to strengthen the development of meteorological service for rural tourism, and further improve the timeliness and accuracy of meteorological service and highlight the informatization and specialization.

However, there are many problems in meteorological service for rural tourism in Hainan Province, lagging the rapid development of rural tourism. On the one hand, the meteorological service is based on traditional content. Firstly, Hainan Province uses conventional weather forecasts, such as daily and weekly reports of indexes such as temperature, precipitation, humidity, barometric pressure, and sunshine. Secondly, it provides forecasts of processed indexes, such as dressing index, car wash index, travel index, etc. Thirdly, it is to provide emergency weather warning signals, such as heavy rain, strong winds, typhoons and other emergency weather warnings. On the other hand, the information release of meteorological service is not good in pertinence. At present, the distribution channel and method of meteorological service



**Figure 1** The support route and integration mechanism of meteorological service for rural tourism.

in Hainan Province are so simple and rely too much on the mode and channel of conventional meteorological service. But the disadvantages are slower update speed, less audience, and greater cost of information dissemination. Finally, there is a contradiction between the demand for meteorological service and the supply capacity of objects. With the development of the rural tourism economy, the contradiction between demand and supply capacity is becoming increasingly prominent. How to improve the ability of meteorological service and the ability to respond to climate

**2. SUPPORT ROUTE**

Considering the problems between rural tourism and meteorological service, the support route can be created from the following aspects, i.e., technology, channel and information. At the same time, the integration mechanism of meteorological service is also proposed. The detailed structure is described by Figure 1. Meteorological service can support rural tourism in terms of technology, channel, and information. The specific support route and method are as follows. Firstly, in terms of technology, since weather forecast is the basis of meteorological service for rural tourism, only a solid foundation can provide accurate and good service. Various reasons, such as the rationality of the numerical forecast model, the complex and changeable atmospheric movement, the particularity of local terrain, the improvement degree of modern weather prediction methods, will affect the accuracy of the weather forecast. At the same time, accurate, continuous and representative observation data is the "raw material" for weather forecast [5]. If the meteorological observation data is lacking, the accuracy of the forecast will be greatly reduced. Continuous improvement of the monitoring network is one of the ways to provide "raw materials" for weather forecasting. Since the existing meteorological monitoring network still cannot fully meet the demand for observation data collection, local meteorological departments should continuously strengthen the

change, provide accurate and timely, rich, high-quality, efficient and equal meteorological service to the society and the public, effectively resist and mitigate meteorological disasters and secondary disasters caused by meteorological events. Thus, it has become the current top priority. At present, from the perspective of global tourism, it is an urgent problem to be solved that how to support the development of rural tourism; and how to establish the fusion mechanism of meteorological service.

construction of the station network, optimize the station network layout, improve the observation system, establish the observation business specifications, technical standards and business processes. Improve the quality of observation data, provide high-quality "raw materials" for weather forecast, continuously realize the accuracy of forecast, and then promote the quality of meteorological service for tourism.

Secondly, as for channel, with the rapid development of internet technology, various new media are emerging. For instance, mobile phones have become an indispensable tool for people to communicate with each other and obtain information. Various social applications, information tools, life service applications and other products are fashionable, novel and bright. They have been widely accepted and used by people. These tools have the characteristics of fast information dissemination, strong interaction, wide affected areas, and large influence. The meteorological departments should actively use these new media to broaden the dissemination channel of information on meteorological service and improve the timeliness of service information release. In addition, although some meteorological departments have developed and established their own mobile APPs, Microblog accounts, and WeChat public accounts, the characteristics are not clear enough, the information is not timely enough, the interaction is not strong, and it cannot attract users' attention widely. On this basis, the deep processing of the information on meteorological service for rural tourism makes the information vivid and easy to understand, and

continuously improves the interactivity and attractiveness of service information.

Thirdly, in recent years, with the change of climate and the improvement of people's requirements for quality of life, the characteristics of personalization and rhythm of tourism have become more and more distinctive. There are a variety of unique tourism products. For Hainan, such as winter cold tourism, avoiding haze lung washing tourism, spa treatment, etc. Based on the basic meteorological service for rural tourism, the meteorological departments should also combine the richness of rural tourism products and the growth of people's needs, conduct demand research in a timely manner, develop ideas, enrich the variety of service products, and provide personalized, tailored service for the needs of different users. Intimate special service.

### 3. INTEGRATION MECHANISM

Based on the above analysis of support routes, the integration mechanism of meteorological service for rural tourism is proposed. Firstly, government guidance has built a platform for the integration of meteorological service. The main performances are as follows. Government departments should recognize that meteorological service is an indispensable service content of rural tourism and a public service product. The local government has provided good infrastructure and related policy support for meteorological service and the development of rural tourism, which has solved the development bottlenecks of large investment in infrastructure, insignificant effects on direct economic, and long recovery cycle. Also, local governments have policy guidance and coordinated planning for the development of meteorological service and rural tourism to ensure their healthy and sustainable development. Propose corrective measures and specific support methods for meteorological service to provide practical and meteorological service guarantee for the development of rural tourism. As a government department, it is possible to provide meteorological service directly or indirectly by the government according to the degree of development of rural tourism and meteorological service [6].

Secondly, technical innovation provides a strong guarantee for meteorological service to support rural tourism. The advancement and innovation of meteorological service technology can enhance the quality and connotation of rural tourism. Science and technology have promoted the modernization and digital development of meteorological service. Further, the advancement and innovation of science and technology have also promoted the modernization of rural tourism, changed the form of rural tourism, increased the value of viewing, and improved the quality of rural tourism products. Technological progress and innovation have played a catalytic role in the integration of meteorological service.

Thirdly, fierce market competition promotes the integration of meteorological service. As a pillar industry of the local economy, rural tourism has developed rapidly

under the policy support and guidance of local governments, which has caused fierce competition in the market. Under the fierce market competition, facing the rural tourism market with low elastic prices, if rural tourism enterprises want to occupy a certain market share, they can only accelerate the upgrading of product quality. The integration of meteorological service provides rural tourism enterprises with innovative rural tourism products, wins the market through the product customization, fashionable and differentiated creativity, and obtains the competition through diversified management. The better development of meteorological service and rural tourism has enriched rural resources, expanded creative space, extended the industrial chain, and is in an advantageous position of market competition.

### 4. CONCLUSION

Based on the perspective of global tourism, taking Hainan Province as an example, the support route and integration mechanism of meteorological service for rural tourism development, i.e., how to provide specific support and how to establish a service integration mechanism between various departments, have been discussed in depth. The development of rural tourism from the perspective of global tourism also requires the support of meteorological service, and at the same time promotes the linkage, integration and cross-development of rural tourism and other industries, and comprehensively promotes the construction of "beautiful villages" in Hainan Province.

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