Research on the Long-term Mechanism of Targeted Poverty Alleviation Driven by Scientific and Technological Innovation

A Case Study*

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Abstract—**The scientific and technological innovation has become one of the research hotspots in the area of targeted poverty alleviation. The paper put forward the dynamic management structure of targeted poverty alleviation, combining the basis connotation of the long-term mechanism, based on the survey of Lianhua in Jiangxi province. The paper also sets up the basis frame of the long-term mechanism, and proposes the suggestion of the mechanism.**

Keywords—scientific and technological innovation; targeted poverty alleviation; long-term; dynamic management

I. Introduction

The targeted poverty alleviation, which proposed by Communist Party of China, is the vital measure of speeding up poverty alleviation and moderately prosperous society. Although the large-scale poverty alleviation has obtained good achievements, part of areas has the poverty-returning phenomenon, as their development lower than the average level. It indicates that the long-term mechanism should be considered in the model of current targeted poverty alleviation.

Lianhua located in the west part of Jiangxi province, is one of central soviet area and national poverty alleviation. The total population of Lianhua is 260 thousands, and agricultural population is 220 thousands, which nearly 36 thousands of them are below the poverty line. The process of targeted poverty alleviation should be speed up, because Lianhua plans to be out of poverty completely. Therefore, the construction of long-term mechanism of targeted poverty alleviation in Lianhua country will provide solid support for the plan of out of poverty, based on the strategy background of scientific and technical innovation driven development.

II. The Long-Term Mechanism of Targeted Poverty Alleviation

In the early stage of poverty alleviation, the number of

people who have been lifted out of poverty in Lianhua County has reached more than 36,000, but the remaining target poverty alleviation is very difficult. Due to different poverty factors and different development intentions of the poor households, Lianhua County has changed the policy of universal poverty alleviation in the past to the targeted poverty alleviation strategy, and established a long-term mechanism of targeted poverty alleviation through four aspects.

A. Accurate Identification of Targets of Poverty Alleviation

The most difficult task for the construction of the long-term mechanism of precise poverty alleviation is to accurately identify the target of poverty alleviation, which is the premise and foundation for the realization of targeted poverty alleviation. At present, there are two commonly used methods of identification: the first one is to identify the poor households according to the income level, a sound statistical system is needed to identify the targets of poverty alleviation based on the income levels set by the state, however, the current statistics are difficult to reflect their real income, which increases the difficulty of the identification method; the second one is to identify the targets of poverty alleviation based on township village system. However, in the actual research, it is found that the village cadres have a disproportionate weight on the identification of the targets of poverty alleviation, which affects the accuracy of the identification.

In order to solve the problem of accurate identification of the targets of poverty alleviation, a dynamic identification management system is put forward. The system originates from that the management of anti-poverty object should be dynamic process due to the uncertainty of poverty causation and poverty recurrence. Through combining the above two kinds of identification means, the management process of accurate identification of anti-poverty targets in Lianhua County is shown in "Fig. 1".
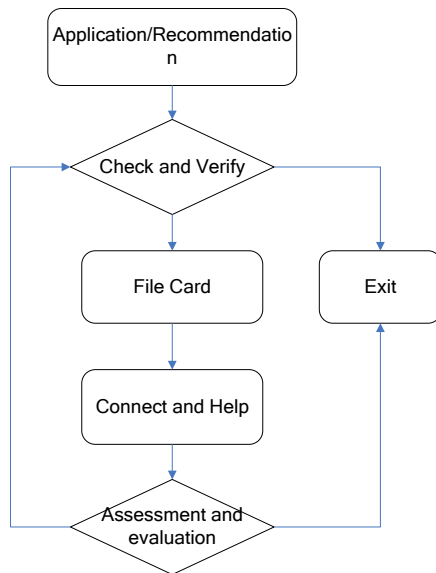
Fig. 1. The management process of accurate identification.

According to the investigation of Lianhua County, the poverty of a considerable proportion of anti-poverty targets is caused by diseases, and the income level alone cannot objectively identify the targets of targeted poverty alleviation, however, the above dynamic management system is very effective. Lianhua County attaches great importance to the role of the resident task force in the identification of poverty-alleviation targets to clarify the reason of poverty causation and poverty recurrence and establish management ledger. The county regulates the poverty alleviation charts through keeping files in each level of the township village system, so as to accurately identify the target of poverty alleviation.

B. Precise Selection of Help Mechanism

Only after the targets and the reasons for their poverty causation and poverty recurrence are clear can the path of poverty alleviation and the help mechanism realize the effective connection between the help resources and the targets. In recent years, Lianhua County has accurately found the help targets in the information platform of the filed anti-poverty targets, and focuses on the implementation of special poverty alleviation projects, such as industrial poverty alleviation and raindrop planning to connect the targets of poverty alleviation and achieve targeted poverty alleviation.

From the experience of poverty alleviation in many areas, industrial poverty alleviation is the key to targeted poverty alleviation. Only through the establishment of local pillar industries can the self-help ability of the help targets be fundamentally enhanced to prevent the poverty recurrence. Take Lianhua County as an example, there is no large-scale industry and enterprises in the county, and agriculture and handicraft industries have not formed scale. Aiming at the current situation of Lianhua County, the hematopoietic method for targeted poverty alleviation is put forward. By mining the needs and characteristics of anti-poverty targets and developing help programs, three kinds of guarantee mechanisms for industrial poverty alleviation have been

developed, namely, raindrop planning, tourism poverty alleviation and cultural poverty alleviation, to achieve targeted poverty alleviation from blood transfusion to hematopoiesis to transformation. As shown in "Fig. 2".
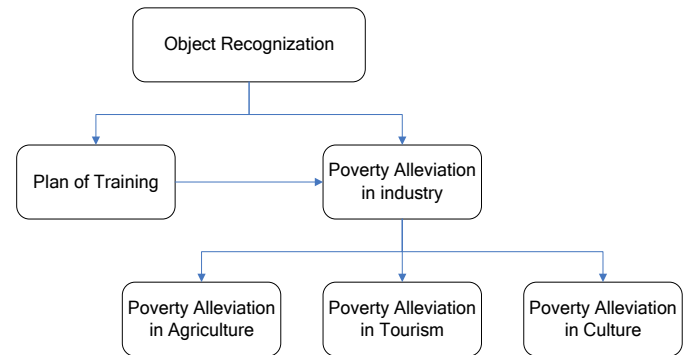

Fig. 2. Precise selection of help mechanism.

C. Dynamic Assessment and Evaluation Mechanism

Due to the diversity of the causes of poverty, the poverty population in the country after the implementation of universal poverty alleviation has a dynamic trend. On the one hand, some poverty-stricken families are weak in their self-development ability, and the blood transfusion type of poverty alleviation cannot help them to lift themselves out of poverty, and they are extremely easy to return to poverty after encountering risks; on the other hand, in the process of targeted poverty alleviation, the project implementation is relatively independent, resulting in unreasonable allocation of resources, and the poor households are unable to bear the poverty after the completion of the poverty alleviation project and when encountering risks, thus returning to poverty again. Therefore, it is necessary to establish dynamic assessment and evaluation mechanism in the process of targeted poverty alleviation, to implement dynamic withdrawal and re-entry management of the poor population, which is an important basis for establishing a long-term mechanism of targeted poverty alleviation.

III. SCIENCE AND TECHNOLOGY INNOVATION DRIVES LONG-TERM GUARANTEE MECHANISM

Under the background of targeted poverty alleviation strategy, scientific and technological innovation is one of the important guarantees for implementing long-term mechanism. Based on the analysis of the current situation of targeted poverty alleviation in Lianhua County, Jiangxi Province, this paper puts forward that the focus of constructing the long-term mechanism of scientific and technological innovation-driven targeted poverty alleviation lies in the Internet + industrial poverty alleviation. Lianhua County has a large agricultural population and is located in the old revolutionary base areas of Jiangxi Province. We can combine the Internet + featured agricultural products processing industry and red tourism routes to create a red cultural themed industry based on the Internet to form a resultant force of targeted poverty alleviation and resource allocation, thus strengthening the hematopoietic function of the targets of poverty alleviation, and help them

overcome poverty and achieve prosperity. Since the implementation of scientific and technological innovation-driven targeted poverty alleviation in Lianhua County, it has covered more than 20,000 poverty-stricken people in 2016 alone, and more than 10,000 of them have been lifted out of poverty. The project has conducted the effect perception analysis of agricultural tourism culture in Lianhua County and issued questionnaires, and the sorting results are shown in "Table I" below.

TABLE I.   ANALYSIS OF THE CULTURAL EFFECT PERCEPTION OF AGRICULTURAL TOURISM

Project Effect	Average Value	Standard Deviation	Ratio of Approval
Promoted the local economy	4.23	0.5157	97.16
Increased the employment chance	4.553	0.5918	98.72
Increased income	4.577	0.5981	98.91
Promoted the protection of red culture heritages	4.173	0.6504	89.75
Improved popularity	4.339	0.661	91.64
Improved infrastructure	4.45	0.5662	96.93
Improved the life quality	4.563	0.5824	97.13

A. Targeted Poverty Alleviation Through Internet + Agriculture

The rural population of Lianhua County occupies 84.6% of the county population, so agricultural poverty alleviation is the top priority. The "Internet + agriculture" combining traditional agriculture with modern Internet technology can give full play to the optimization and integration functions of the Internet in resource allocation, thus effectively opening up new platforms for farmers to innovate and start businesses. Through the reconstruction of various aspects of traditional agriculture such as technology, production, processing, distribution and sales through modern Internet technology, Lianhua County improves the efficiency of resource utilization, promotes the upgrading of the agricultural industry chain, and promotes the effective integration of agriculture.

The featured agriculture of Lianhua County includes the high-quality rice industry, lotus industry, pollution-free vegetable industry, tea industry and flower seedling industry, etc., the county is now steadily advancing the Internet + agriculture, and gradually realizing the infrastructure construction of the following four aspects to provide guarantee for the long-term mechanism of poverty alleviation in the agricultural industry.

The first is to improve the construction of rural Internet infrastructure to expand the broadband coverage in rural areas; the second is to establish an information-based business platform to strengthen the development of information resources related to agriculture; the third is to build a network of rural e-commerce enterprises based on the Internet+ to expand the channels for the purchase and sale of featured agricultural products; the fourth is to accelerate the construction of the supporting service system and logistics

distribution system of "Internet + agricultural products marketing".

B. Targeted Poverty Alleviation Through Internet + Tourism

Lianhua County is rich in red tourism resources. Currently, red tourist routes and classic scenic spots have been planned, which combines the revolutionary traditional education with the development of tourism industry, which develops into a new type of theme tourism. Lianhua County has beautiful green ecological environment, at present, it has constructed the lotus flower theme ecological landscape, created the tourism industry with characteristic lotus flower expo and established the characteristic agriculture and tourism base. Through combining the green ecological tourism and red theme travel together, Lianhua County takes a road of the ecological tourism with sustainable development, thus promoting the rapid development of related industries such as commerce, catering, agritainment, etc.

Using the Internet to realize tourism resource marketing will be one of the highlights of the tourism poverty alleviation in Lianhua County. The county will actively develop smart rural tourism, and fully rely on the new media such as WeChat Official Account, micro film and micro blog to carry out online promotion of tourism products. It also encourages college-graduate village officials to take photos of the village and upload them to the Internet to promote rural tourism and enhance the popularity of the region, so as to promote the online and offline sales of tourism products and featured agricultural products, thus quickly bringing local farmers out of poverty.

C. Targeted Poverty Alleviation Through Internet + Culture

Targeted poverty alleviation is not only an economic assistance to the targets of poverty alleviation, but should also consider the poverty alleviation of ideological and cultural concepts. For Lianhua County, poverty is not only reflected in the economic aspect, but also in the cultural quality, which affects the economic level and the people's living standard. The focus of cultural targeted poverty alleviation is to dig deep into the distinctive cultural resources of the poverty-stricken areas, improve the hardware conditions of cultural communication, intensify cultural product promotion, and support local special cultural industries.

Lianhua County is rich in red cultural resources with more than 30 revolutionary monuments such as the Gun Museum of Lianhua County, Lianhua Memorial Hall For Revolutionary Martyrs, etc. In the process of targeted poverty alleviation, the promotion of Internet + red culture can broaden the employment channels of local poor people, which can link up the red culture with tourism, retail and catering industries to enhance the "hematopoietic" function of anti-poverty targets. Meanwhile, the Internet provides the operational platform and information platform for the cultural targeted poverty alleviation in Lianhua County. With the help of the Internet, the targets of poverty alleviation can effectively improve cultural literacy, and can also rapidly spread red culture and promote the development of red culture industry, which provides new ideas for targeted poverty alleviation.

IV. CONCLUSION

Scientific and technological innovation has become an important driving force for poverty alleviation. Faced with the daunting task of overcoming poverty in the new situation, Lianhua County adopts the Internet + industry poverty alleviation mode, and by focusing on the targeted poverty alleviation through agriculture, tourism and culture, it closely links scientific and technological innovation with targeted poverty alleviation to strengthen its hematopoietic function, and constructs the long-term mechanism of scientific and technological innovation-driven targeted poverty alleviation through accurately identifying the targets of poverty alleviation, choosing the help path, implementing the poverty alleviation mechanism and evaluating the monitoring system, which puts forward new ideas for targeted poverty alleviation.

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