

Four-dimensional Ecological Model of Colleges and Universities Participating in Poverty Alleviation

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Abstract: Targeted poverty alleviation and eradication have entered a crucial stage of development, and we need to mobilize the entire Party, the whole country and the whole society to actively participate. As a combination of intelligence, innovation, science, technology and talents, colleges and universities have actively participated in the targeted poverty alleviation battle and achieved certain experience. Concerning the problem of how to get rid of poverty, this paper studies how to establish a long-term mechanism to ensure the continuous development of poverty reduction. Then, it proposes the exploration of the four-dimensional ecological mechanism path of colleges and universities participating in poverty alleviation: the ecological mechanism for poverty alleviation through education, ecological mechanisms for poverty alleviation through science, technology and industry, the ecological mechanism of talent poverty alleviation and the ecological mechanism of tracking evaluation. The coordinated promotion and circular operation of the four ecological mechanisms will explore new ideas and new paths for colleges and universities to participate in poverty alleviation.

Introduction

In November 2015, Xi Jinping's China Central Poverty Alleviation and Development Work Conference proposed to resolutely win the battle against poverty. The conference proposed to ensure that all poor areas and the poor would step into a well-off society in an all-round way by 2020. In the State Council's work report in 2019, Li Keqiang proposed that we should benchmark the task of building a well-off society in an all-round way, solidly promote poverty alleviation and rural revitalization, and take targeted measures against poverty. According to the data of the Poverty Alleviation Office of the State Council, from 2013 to 2018, a total of 82.39 million people were lifted out of poverty, with the poverty rate dropping from 10.2% to 1.7%^[1]. In the process of targeted poverty alleviation and eradication, China has exceeded ten million poverty reduction tasks for 6 consecutive years.

The 19th National Congress of the Communist Party of China proposed to mobilize the entire Party, the whole country and the whole society to persist in ensuring poverty alleviation and eradication. As the main institution of professional and vocational education, colleges and universities not only shoulder the task of teaching, research and training talents, but also shoulder the responsibility of social services. Especially as a complex of intelligence, innovation, science, technology and talents, colleges and universities play an irreplaceable role in the targeted poverty alleviation. According to the strategic decision-making and deployment of the Party Central Committee and the State Council, these schools have also made significant progress in targeted poverty alleviation and eradication. According to the opinions of the Ministry of education on the targeted poverty alleviation work of colleges and universities directly under the State Council in the new era, these schools need to sign responsibility letters to the leading groups of poverty alleviation

of the State Council every year. Schools need to make clear the annual work tasks, regularly report the work progress, and accept the work performance assessment at the end of the year^[2]. In the new era, the role and importance of the schools in poverty alleviation are also prominent.

The Current Situation of Colleges and Universities Participating in Poverty Alleviation

In order to make colleges and universities better serve as vanguards, the Party Central Committee and the State Council have issued a series of supporting policies to encourage them to participate in this battle. In 2011, the State Council issued the "Outline for the Development of Rural Poverty Alleviation in China (2011-2020)". In 2012, eight departments, including the Poverty Alleviation Office of the State Council and the Central Organization Department, jointly issued "Notice on a New Round of Targeted Poverty Alleviation Work for Central and State Organs and Related Units". These documents all encourage schools to fully play their advantages and actively participate in targeted poverty alleviation; In July 2013, the General Office of the State Council forwarded the notice of "Opinions of the Ministry of Education on the Implementation of Poverty Alleviation Projects through Education", and made strategic deployment for organizing and implementing poverty alleviation projects through education. In 2016, it launched the "Thousand School Actions on Skills for Poverty Alleviation"; Nine departments implemented the third round of "three supports and one assistance" plan for college graduates; The Communist Youth League helped the battle against poverty, etc. All these actions highlight the important role of colleges and universities in targeted poverty alleviation. Besides, in 2018, the "Implementation Plan for Poverty Alleviation through Education in Deep Poverty Areas (2018-2020)" focused on the poverty alleviation through education in "three regions and three prefectures". In May 2019, the "Proposal for the Promotion of Vocational Skills (2019-2021)" strengthened the work of skills poverty alleviation for deep poverty.

Since the implementation of targeted poverty alleviation and eradication, colleges and universities has also made great progress. 44 directly affiliated schools have been designated to help the poor in 44 state-level poor counties. 22 directly affiliated schools, 9 directly affiliated units and 10 vocational education groups in the eastern region have been mobilized to deploy "one-to-one" to undertake the task of poverty alleviation in western Yunnan, and 5 batches of 284 educational cadres have been selected to take the post of poverty alleviation^[3]. 10 typical targeted poverty alleviation projects of colleges and universities directly under the Ministry of Education are elected for two consecutive terms^[4]. These provide effective reference for the schools to participate in poverty alleviation. However, in the process of exploring targeted poverty alleviation and eradication in colleges and universities, a series of problems are also gradually exposed. These problems include the difficulty of targeted identification of targeted poverty alleviation, the difficulty of customizing the assistance program for poor households, and the difficulty of effective application of university scientific research in poor areas. This is particular for the goal of "two guarantees": in 2020, all the poor will be lifted out of poverty and all poverty will be eliminated; and all the poor counties will be uncapped and the overall poverty of the regions will be solved. After that, how to effectively withdraw, prevent from returning to poverty again after getting rid of it, how to establish a long-term mechanism to ensure the continuous development of poverty reduction will be a new idea and new path for colleges and universities to participate in poverty alleviation.

The Path Exploration of Four-dimensional Ecological Mechanism of Colleges and Universities Participating in Poverty Alleviation

The typical projects of targeted poverty alleviation and eradication in colleges and universities are summarized in five aspects including poverty alleviation through education, industry, science and technology, intelligence and Party building. These five forces promote and interact with each other under the leadership of the schools. At present, Michael Porter's five-force model is quite popular which means that the competitive state and profitability of an industry depend on the

interaction among the five basic competitive forces^[5]. It links these five aspects of targeted poverty alleviation in colleges and universities. These schools have concluded the experience participating in poverty alleviation at this stage, and analyzed the difficulties that should be broken through in this process. Thus, in the work of targeted poverty alleviation and eradication, they are given a new mission in the new era and new period. Based on this, the author concludes and proposes four-dimensional ecological mechanism for colleges and universities participating in poverty alleviation (Fig.1) : the ecological mechanism of poverty alleviation through education, technology and industry, talents and tracking evaluation.

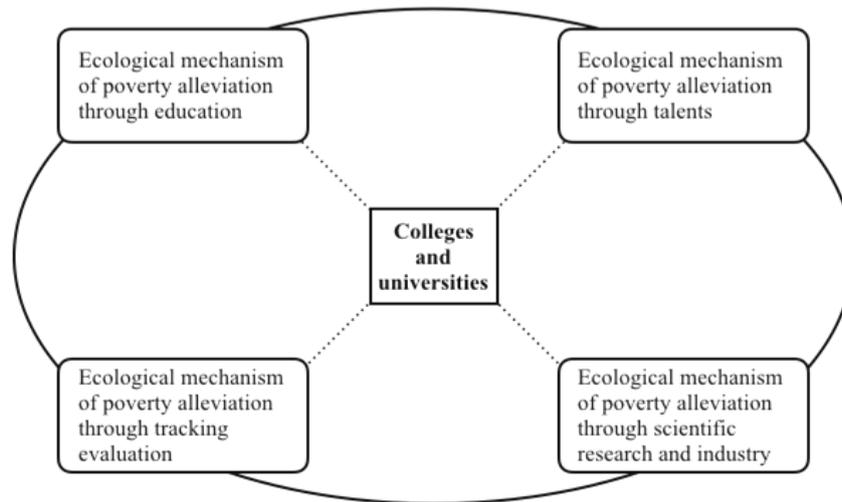


Figure 1. Four-dimensional ecological mechanism of colleges and universities participating in poverty alleviation

The ecological mechanism of poverty alleviation through education can provide policies, scientific research guarantee and talents for the ecological mechanism of poverty alleviation through technology industry. The ecological mechanism of poverty alleviation through technology industry can provide practice places for poverty alleviation through talents and education in colleges and universities. The ecological mechanism of poverty alleviation through talents can promote the further progress of the ecological mechanisms of poverty alleviation through talents and technology industry. The ecological mechanism of tracking evaluation is the evaluation system of the above three mechanisms, which promotes colleges and universities to participate in the four-dimensional ecological mechanism of poverty alleviation.

Colleges and universities assist the ecological mechanism of poverty alleviation through education

Poverty alleviation through ideological and cultural education. According to Maslow's hierarchy of needs, human needs are divided into physiological needs, security needs, social needs, respect needs, and self-realization needs from low to high. Targeted poverty alleviation meets the first and second levels: "physiological needs" and "security needs". From the material point of view, it defines the standard for poverty alleviation, that is, by 2020, the rural poor will have no worries about food and clothing, compulsory education, basic medical care and housing safety will be guaranteed. And the highest level of "self-realization needs" is the real internal driving force for the poor to get rid of poverty, which is the reason why poverty alleviation should first support their aspirations.

The first is to integrate ideological and political education into the whole process of poverty alleviation through education. As the main research, teaching and communication organization of

ideological and political education, colleges and universities have professional and frontier advantages in this field of education for the poor in poor areas. These schools play a very important role in guiding the values of the poor and pursuing self-realization. The design of poverty alleviation policies must pay more attention to enhancing the self-development ability of the poor and solving the outstanding problems that restrict their development^[6]. Colleges and universities can conduct activities such as the second class of ideological and political education and the great discussion on poverty alleviation in targeted poverty alleviation areas. Particularly, concerning the poor areas with low educational level and backward concept of “waiting, depending and requiring” of poverty alleviation, through the dissemination of professional ideological and political education in colleges and universities, we can help the poor to break through the shackles of mistakes, establish correct values, and build confidence and morale to get rid of poverty.

The second is culture as a supplement to poverty alleviation through ideological and cultural education. As a culture of all human spiritual activities, its rich content can be used as a supplement to the poverty alleviation through ideological and cultural education. Colleges and universities have versatile student groups and professional associations. They can cooperate with local cultural tourism departments to jointly develop stage plays and operas based on stories about local poverty alleviation. Besides, they can also hang propaganda slogans, post posters about poverty alleviation, promote Mandarin, hold artistic parties, speech contests and other popular ways for ordinary people. These activities can spread positive energy, form a good atmosphere and enhance the spirit for poverty alleviation.

Poverty alleviation through vocational education. General secretary Xi Jinping once said, "to shake off poverty is not to get rid of the material poverty, but the poverty of consciousness and thinking."^[7] Ideological and cultural poverty alleviation is to get rid of the poverty of consciousness, so possessing a skill is to get rid of the poverty of thinking. Under the background of China's vigorous development of vocational education, as the main position of poverty alleviation through vocational education, higher vocational colleges have systematic, high-level and professional training experience. These schools can provide targeted skills training for the poor who are suffering from poverty for different reasons in poor areas. On the one hand, for the students who have been identified as poor, schools can help them by providing living subsidies, reducing tuition fees, providing part-time jobs, and targeted skills training for poverty alleviation so as to establish a subsidy system for poor students throughout the school; On the other hand, for poor households in poor areas, schools can provide free vocational skills training and subsidized training for poor laborers based on relevant policies. Colleges and universities can launch the pilot work of "diploma + several certificates of professional skills". It's better to teach fishing than to offer fish. Only with the need of self realization and a skill, can we prevent from returning to poverty again from the root.

Poverty alleviation through basic education. Colleges and universities provide teachers for basic education, and they are also indirect participants in basic education. Teachers of infant education, primary education, and general secondary education have known about poverty alleviation ideas, learned about poverty alleviation policies, and understood poverty alleviation dynamics during their college life. This enables the implementation of poverty alleviation through basic education and the involvement of college talents in the cause of poverty reduction through basic education to become a circular ecosystem.

Colleges and universities assist the ecological mechanism of poverty alleviation through science and technology and industry.

Scientific research is one of the four functions of colleges and universities, which provides scientific policy support and guidance for targeted poverty alleviation. For colleges and universities themselves, it is also helpful to apply their theoretical research results and scientific research results to practice and serve the society. Colleges and universities assist poverty alleviation through science and technology and industry, link scientific research, government and industry with themselves as the core, and establish two long-term mechanisms of three-effect circulation cooperation.

Long-term mechanism of three-effect circulation of industry, teaching and research. Science and technology are the primary productive forces. Poverty alleviation through science and

technology and industry is inseparable from scientific research results. Scientific research results generally come from colleges and special scientific research institutions, and they are inextricably linked. In poor areas, it is necessary to make targeted positioning, find out the direction of poverty alleviation, formulate poverty alleviation programs, and establish targeted poverty alleviation institutes and scientific research institutes. In this way, the scientific research capacity of the region can be transformed into productivity, thus fundamentally leading the region out of poverty. Then, this will eventually form a three-in-one circular ecological mechanism of enterprises, universities and research institutions.

Long-term mechanism of cooperation among universities, government and industry. According to the "three-helix model" of economists such as Rexdorf^[81], college and universities, government and industry are mutually reinforcing. Industrial poverty alleviation provides specific poverty alleviation projects for poor areas; Colleges and universities provide the latest scientific research results and technical support to form a new trend of poverty alleviation through science and technology and assist these projects; The government provides policy support and bridges for industrial poverty alleviation and scientific research in these schools. The professional advantages and research capabilities of schools can be utilized to focus on promoting poverty alleviation in poor areas, especially featured agricultural products, handicraft industry, folk traditional skills, which are mainly based on these products and tourism development. Universities and the government jointly develop, design, build sales platforms, unblock sales channels, promote residents' consumption, promote local employment, promote industrial development, and establish a long-term tripartite cooperative mechanism.

Colleges and universities assist the ecological mechanism of poverty alleviation through talents

Science and technology are the primary productive forces, and its development depends on talents. Under the background of the new era, the strategy of strengthening the country with talents is endowed with more profound strategic core significance. Talents training is one of the main functions of colleges and universities. It is not only the main center for exporting professional talents for the battle of targeted poverty alleviation, but also an important base for training professional talents of poverty alleviation. The ecological mechanism of poverty alleviation through talents assisted by colleges and universities mainly includes two aspects: internal talents output and external talents training.

Plan of talents export for poverty alleviation. Firstly, experts and scholars are the leaders of poverty alleviation through talents, and colleges and universities are the main front for their scientific research and teaching. Professional scholars who study targeted poverty alleviation and eradication can provide theoretical support and policy guidance, and lead the interpretation and customization of targeted poverty alleviation plans for the poor areas; Experts and scholars in specific industries, such as agricultural experts, aquaculture experts, e-commerce experts, regularly conduct poverty alleviation lectures at the grassroots level. They provide advanced professional and technical knowledge training and auxiliary vocational and technical training for poor households. Secondly, college students are the main force of poverty alleviation. College students are encouraged to participate in the battle against poverty, practice the socialist core values, and become promoters of building a moderately well-off society in all aspects and also builders of the two centenary goals of the Chinese dream. On the one hand, college students can participate in poverty alleviation activities in poor areas by relying on school activities, tutor professional projects, social practices in winter and summer vacations, activities of "bringing culture, technology and health-care skills to the countryside", volunteer service organizations, supporting teaching organization, etc. Schools can establish long-term activities for college students to participate in targeted poverty alleviation, and use specific ways such as issuing social service certificates and incorporating social practice credits to stimulate their participation. On the other hand, we should encourage previous graduates to join in the battle against poverty. It can attract college graduates, especially those from poor areas, to participate in the education work in deeply poor areas. Colleges

and universities can make corresponding training bases for "rural teachers for poverty alleviation", college-graduate village officials and "three supports and one assistance", depending on the two talents export plans for poverty alleviation. They can regularly invite graduates who have been engaged in poverty alleviation to return to give lectures and study, and establish an ecological cycle of talent export plan for poverty alleviation.

Talents training plan for poverty reduction. 2020 will be the final year in the battle against poverty. After building a moderately prosperous society in an all-round way, it still needs to promote poverty reduction. Colleges and universities can conduct various forms of talents training plans for poverty reduction including cadres training courses for poverty alleviation at the grass-roots level, special training courses for rural education, entrepreneurship training courses for poverty alleviation, scientific research training courses for poverty alleviation through science and technology, etc. These can create a long-term mechanism for talents training of professional brands, and also provide a strong talent guarantee for scientific research and industrial poverty alleviation.

Colleges and universities assist the ecological mechanism of tracking evaluation. Whether the effect of poverty alleviation is good or not requires regular evaluation. The government has the experience of introducing independent and professional third-party evaluation agencies, and actually can also effectively introduce colleges and universities to participate in their tracking evaluation. The government purchases professional third-party evaluation agencies, mostly through bidding, with big changes and high costs. Introducing colleges and universities to participate in third-party tracking evaluation can provide internship positions for corresponding students. Moreover, it is also possible to establish professional studios, campus traditional activities like bringing culture, technology and health-care skills to the countryside to regularly track and return visits to poor households, build a big data platform, and effectively establish an ecological mechanism for tracking evaluation.

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