

China's Economic Stability Through Management of Rural Education Development: Condition and Possibilities

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Abstract: As the largest developing country, China has made significant achievements in the battle against poverty in a short period. The key point lies in the targeted rural poverty alleviation policies with Chinese characteristics, for which educational poverty alleviation is the fundamental guarantee. Educational poverty alleviation in rural poverty-stricken areas is mainly to improve the total amount and quality of rural human resources with the adoption of various education-based human resource development models. The development of rural human resources is conducive to increase the income of rural poverty families and then achieve sustained poverty elimination. In this study, we argue that preschool education could promote economic growth in rural poverty-stricken areas through internal and spillover effects based on human resource development. Internal effect is mainly manifested in its direct effect on improving the quality of human resources, for example, to block the inter-generational transmission of poverty by cultivating high-quality laborers in the future. While, the spillover effect is mainly reflected in the increase in the total amount of human resources, such as transforming the original child caregivers (female and elderly) into productive laborers. Additionally, the teacher training model for preschool education in rural areas could also promote rural human resources development by enabling plenty of surplus laborers to participate in preschool education. To the best of our knowledge, this study is the first to analyze the effects of preschool education on achieving sustained poverty elimination in the post-poverty era from a new perspective of human resources development with the combination of the seventh population census bulletin and the three-child policy recently released in China. Our findings could provide references for other developing countries that are committed to poverty alleviation, and also are conducive to accelerate the process of establishing inclusive preschool childcare and education service system in China to achieve sustainable rural development.

Keywords: Management, rural human resources development, education, economic stability, sustainable development, China.

1. INTRODUCTION

As the world's most populous developing country and a hilly country with mountainous regions, China has an enormous rural population that has reached 522 million by 2020 (Liu Y., Liu J., & Zhou Y., 2017). The level of rural economic development could reflect the level of economic develop-

ment of the entire nation to some extent (National Bureau of Statistics of China, 2020). In 2021, China has completed the arduous task of eliminating absolute poverty, involving 98.99 million rural poverty population, 832 impoverished counties, and 128,000 impoverished villages. This achievement created a Chinese sample of poverty reduction governance and made a significant contribution to the cause of global poverty reduction. It is well known that poverty alleviation is a noticeable problem plaguing global development and governance. However, in the context of the severe poverty situation in the world and the increasing polarization between rich and poor in some countries, China has achieved

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the poverty alleviation target set out in the 2030 Agenda for sustainable development issued by the UN 10 years ahead of schedule, winning wide acclaim from the international community. It has taken more than 100 years for developed countries to reduce the incidence of poverty to 10%. While it only took 42 years for China to reduce the rural poverty incidence rate from 97.5% in 1978 to zero in 2020 under the current standard, creating a Chinese miracle in the history of human poverty reduction (Luo Y. and Yu, J., 2021).

China has entered the post-poverty era, which means a new period of consolidation in poverty-stricken areas around five to eight years after absolute poverty eradication with the help of the government or other social (Njoya E.T. and Seetaram N., 2017). During this period, rural revitalization strategic plans are placing rural construction in a prominent position by classifying villages and defining the priority of construction (Tan M., Liu Q. and Huang N., 2020). If the rural human resources development is overlooked in the process and rural human resources are not fully utilized for scientific planning and management, agricultural production will be difficult to sustain and phenomenon of returning to poverty will occur. It is an enormous challenge of the national poverty alleviation work in the post-poverty era. So, it is necessary to comprehensively promote human resources development in the rural areas of different regions to reduce regional differences and resolve the persistent poverty and poverty-returning caused by capability poverty (Alkire S., Roche J.M. and Vaz A., 2017).

The existing research on rural human resources development is mainly focused on theoretical research and case studies because that the development to a large extent depends on the factors of government strategy and support policy (Gryshova I., Koshkaldal I., Demchuk N., Stebliuk N., Volosova N., 2019). The rural human resources development involves the development direction of agriculture and rural with regional characteristics and differences, so case studies are more targeted. Most of the relevant research results are published in the influential and authoritative journals issued by the American Society for Human Resource Development, such as HRDI, ADHR, HRDQ, HRDR, and JRS. Among all the publications, there are more about enterprise human resource development and only a few related to rural human resources development. It testifies that the researchers who are concerned about rural human resources development are still limited. The research topics mainly focus on five aspects, including the development function (Asrarulhaq M., 2015), development strategy (Latif A., Nazar M.S. Khan T.M. and Shaikh F.M., 2011), influencing factors (Bjorvatn K., Falch R., Hernaes U., 2016; Peou C., 2016), development mode (Liu J., 2017; Lengyel P., Füzési I., Péntek A., Herdon M., 2016), and development object (Escobal J., Favareto A., Aguirre F., Ponce C., 2014; Partridge T., 2015), among which the latter four topics have more practical significance.

Additionally, education is a key indicator of human capital in China. In particular, preschool education for children could improve children's human capital and development so that children from the underprivileged families could seek more social and economic opportunities, thereby reducing the transmission of inter-generational income inequality (Tu B., Huang C., Sorensen J., 2020). For a long time, China has

been firmly holding on to advocate the concept of vigorously developing education and actively promote education practice. Also, education is considered as the fundamental policy of getting rid of poverty and the dominant way to impede the inter-generational transmission of poverty. Therefore, more attention should be paid to the significant influence of education in rural human resources development. However, the previous studies mainly focus on vocational education and adult education in promoting rural human resources development. There is limited study on the relationship between preschool education and rural human resources development. To bridge this gap, this study attempts to explore the effects of preschool education on sustained poverty elimination from the perspective of rural human resources development in the post-poverty era.

The purpose of this study is to review China's achievements in poverty alleviation and the contributions of effective rural human resource development models to it. On that basis, the effects of preschool education on sustained poverty elimination in the post-poverty era are comprehensively analyzed from the perspective of human resources development to figure out how to exert the influence of preschool education on consolidating the achievements of poverty alleviation.

2. METHODOLOGY

The methods adopted in this study mainly are literature research and thematic research. Through thematic research of China's achievements in poverty alleviation and a comprehensive review of relevant documents, regulations, and data, we attempt to explore the positive effects of preschool education on the realization of sustained poverty elimination.

3. RESULTS AND DISCUSSION

3.1. Major Achievements in Poverty Alleviation in China

Poverty is a stubborn disease of human society, so anti-poverty has always been a prominent event in national governance at all times and all over the world. As the country with the maximal rural poverty population before, China has formed a poverty reduction model with unique characteristics and made remarkable achievements in the anti-poverty campaigns over the past decades (Liu Y., Guo Y., Zhou Y., 2018).

First of all, China has lifted all the rural poverty population out of poverty, making a pivotal contribution to build a moderately prosperous society in all respects. As the times progress, it is generally accepted that the measurement of poverty has gradually changed from a one-dimensional measure of income or consumption poverty to a multi-dimensional measure of education, health, and living standards (Alkire S., Foster J., 2011; Alkire S., Santos M.E., 2014). Data show that the consumption level of the rural population in China presents a significant trend of growth with the increase of the income level, for instance, the per capita disposable income and expenditure of China's rural population in 2019 both increased nearly twice as much as that of 2013 (Fig. 1). All the rural poverty population in China have guaranteed access to food, clothing, housing, transportation, compulsory education, and basic medical insurance. Despite the impact of COVID-19 pandemic, China has adopted various poverty

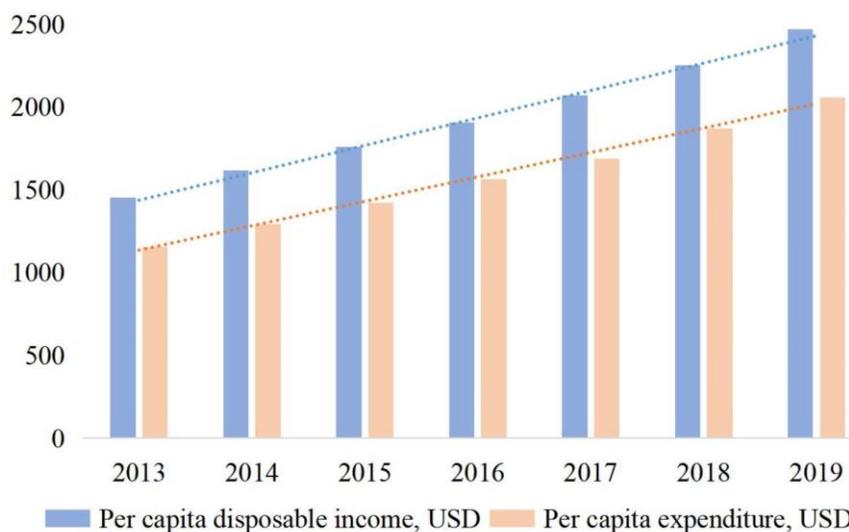


Fig. (1). Per capita disposable income and expenditure of rural residents from 2013 to 2019.

Source: formed by the authors (National Bureau of Statistics of China, 2020).

alleviation policies in 2020 and eliminated absolute poverty, which has changed the lives of countless people.

In the next place, the pace of development in rural poverty-stricken areas has been significantly accelerated with increased economic strength, improved infrastructure construction, and progress in social programs. In terms of infrastructure construction, all towns and villages where conditions permit access hardened roads, buses, and postal roads. A total of 1.1 million kilometers of rural roads were upgraded, and 35,000 kilometers of railway lines were added. The reliability rate of rural power supply in poverty-stricken areas is 99%, power supply in poverty villages within the coverage of large power grid is 100%, and optical fiber and 4G are more than 98% in poverty villages. The dilapidated houses of 7.9 million households were renovated. A total of 35,000 central resettlement areas and 2.66 million housing units were built. More than 9.6 million residents were moved to new homes, getting rid of seclusion and backwardness. In terms of basic education, dropouts from the underprivileged families registered in the compulsory education stage have been cleared dynamically. Millions of children in poverty-stricken areas have enjoyed a fairer education opportunity. Children in poor mountainous areas have lived and eaten in school instead of traveling across mountains and rivers to school every day.

The significant achievements in poverty alleviation under the Chinese model have provided a Chinese approach to other countries that are committed to poverty reduction. China's success in the battle against poverty mainly lies in its adherence to the targeted poverty alleviation strategy and adopting a development approach to eliminate the root causes of poverty. The targeted poverty alleviation strategy means implementing refined management and support of poverty alleviation resources, ensuring the resources are truly used for poverty alleviation targets and rural poverty-stricken areas. Moreover, the development-based poverty alleviation principle has

been adhered to as the fundamental way to reduce poverty to realize the transformation from "blood-transfusion" poverty alleviation to "blood-building" assistance by improving development conditions and enhancing the poverty alleviation capacity of the rural poverty population.

3.2. Rural Human Resources Development Towards Poverty Alleviation

3.2.1. Models and Contributions of Rural Human Resource Development

It is well known that the core problem of poverty is capability poverty, and material poverty is only temporary. Strengthening the rural human resource development to improve the social comprehensive ability of rural laborers is the pivotal content of poverty alleviation. Rural human resources include agricultural labor resources and non-agricultural labor resources. For the former, there are mainly the following four representative rural human resource development models in China.

Green certificate model. It is a kind of training model coordinated by the government to establish scientific and technological training base in the competitive agricultural products industry so that farmers could combine production practice with theoretical knowledge. The goal of this model is to cultivate rural labor force under 45 years old into the backbone of agricultural production technology.

Enterprise-driven model. It refers to a form of scientific and technological training organized by enterprises that focuses on skills with the goal of maximizing benefits. This kind of training is mainly aimed at migrant laborers who have signed contracts with enterprises.

Entrepreneurship-driven model. This kind of training model generates from the human resource development needs of entrepreneurs to obtain entrepreneurial benefits and continuously improve their qualities by means of independent learning.

Table 1. Main Agricultural Production Output Growth from 1978 to 2019.

| Item | Annual Total Output, Kilo-Tons | | | Average Annual Growth Rate, % | |
|-------------------|--------------------------------|--------|--------|-------------------------------|-----------|
| | 1978 | 2001 | 2019 | 1978-2019 | 2001-2019 |
| Grain | 304770 | 452637 | 663843 | 2.9 | 2.6 |
| Oil-bearing crops | 5218 | 28649 | 34930 | 13.9 | 1.2 |
| Cotton | 2167 | 5324 | 5889 | 4.2 | 0.6 |
| Sugarcane | 2116 | 75663 | 109388 | 123.6 | 2.5 |
| Beetroots | 2702 | 10889 | 11273 | 7.7 | 0.2 |
| Tea | 268 | 702 | 2777 | 22.8 | 16.4 |
| Fruits | 6570 | 66580 | 274008 | 99.3 | 17.3 |
| Aquatic products | 4654 | 43813 | 64804 | 31.5 | 2.7 |

Source: formed by the authors (National Bureau of Statistics of China, 2020).

Resource attraction model. It means to attract social capital investment or high-quality human resources to promote rural human resource development by taking characteristic resources and high-quality resources as the carrier. This model is mainly aimed at the areas with characteristic and high-quality resources.

Modern agriculture is the direction of China's agricultural development, and the realization of modern agriculture is inseparable from new-type farmers. By adopting a variety of rural human resources development models, China has continuously improved the training content and increased the long-term training mechanism to bring up new-type farmers with literacy, farming technique, and management to promote agricultural development. The development of farmers and the upgrading of agriculture have extremely promoted the growth of total agricultural production output (Table 1). It not only exerted a decisive influence on rural poverty alleviation in the early stage of reform and opening up but also made considerable contributions to poverty reduction during the accelerated development of industrialization and urbanization.

In addition, the human resources development of the non-agricultural labor force is also a considerable part. With the development of agricultural modernization and the continuous advancement of rural urbanization, large amounts of rural surplus labor have appeared and begun to shift to non-agricultural fields. Statistics show that the proportion of employment in China's non-agricultural industries reached 74.9% in 2019, increasing nearly 46% over 1978. The transfer of agricultural labor to non-agricultural areas in China could significantly reduce the incidence of poverty. Its poverty reduction effect is not only on the region where they are located but also the neighboring rural areas through spatial spillover effect (Huang D., Ding S., Tan C., 2021). It is important to notice that rural human resource development based on professional education and training is an effective and necessary way to promote the transfer of rural surplus labor to non-agricultural field. The Chinese government always emphasizes on free programs of education and training for the transfer of rural labor force. They have actively taken various measures, including guiding training, skill training,

and transfer employment training, for example, rural household education, cooking technology training, and folk handicraft production skills training. The human resources development of the non-agricultural and agricultural labor forces both made crucial contributions to poverty reduction in rural areas and are effective means to achieve sustained poverty elimination.

3.2.2. Live-streaming E-commerce Model Towards Poverty Alleviation

Except as the existing rural human resources development models, the change of consumption habits caused by internet technology provides a new perspective for developing of rural areas in China. Since 2020, the outbreak of COVID-19 has resulted in poor sales of agricultural products, which has also caused a bottleneck in China's poverty alleviation efforts. In this context, a new model of live-streaming e-commerce for rural poverty alleviation emerges at the right moment, which is the activity that expands the influence of poverty-stricken areas and their product sales to achieve economic income growth by using the internet live-streaming platforms. Live commerce is the most typical pattern of live-streaming e-commerce to help farmers alleviate poverty. It mainly adopts the form of live video to publicize and display featured agricultural products in real-time, shorten the distance between consumers and producers to arouse consumers' enthusiasm for purchasing, and thus expand the sales of agricultural products in poverty-stricken areas.

In this new model, smartphones have become the "new farm tools", and live-streaming has become the "new farm work." Some local governments and online platforms such as Tik Tok, Alibaba, and JD.com have provided free live-streaming training courses to help new professional farmers learn to use live-streaming e-commerce platforms to expand sales channels and solve the problem unmarketable agricultural products. Many farmers have sold their agricultural products or local delicacies through live-streaming, which increases their income and gradually embarks on the road of continuous poverty alleviation and prosperity. Government officials of many cities and counties have also acted as extra live-streaming hosts to speak for local agricultural products,

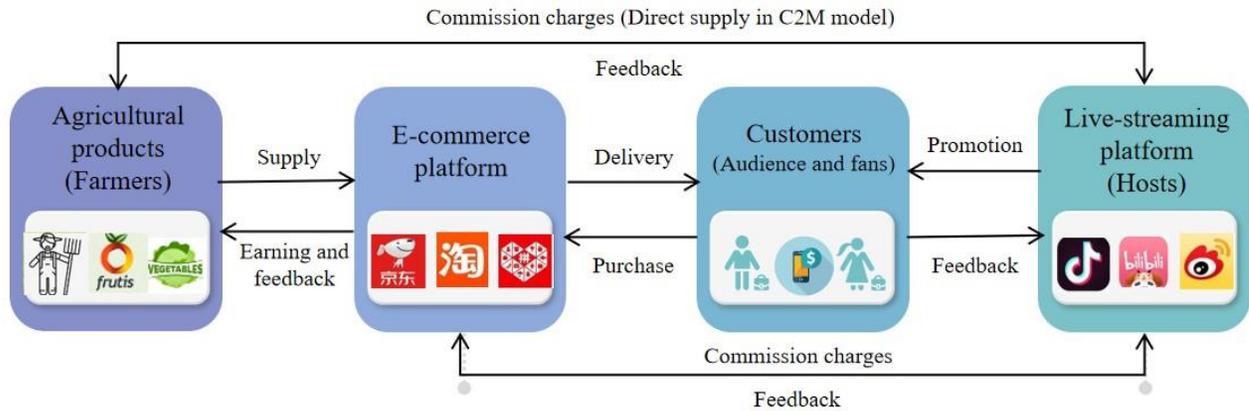


Fig. (2). Live-streaming e-commerce model of rural agricultural products sales.

Source: formed by the authors.

combining government credibility with network communication to expand sales channels. It not only breaks the public's stereotype impression of government but also provides strong support for raising farmers' income and winning the battle against poverty.

The cooperation between live-streaming platforms and e-commerce platforms guarantees the construction of the supply chain system of rural agricultural products, including production, supply, storage, delivery, promotion, feedback, and other processes (Fig. 2). Moreover, compared with traditional poverty alleviation activities, a live-streaming platform could gather the data of consumer demand, expectation, and sustained sales results. Also, the in-depth analysis report of these data could guide the future development direction of agricultural products (Lyulyov O., Pimonenko T., Stoyanets N., Letunovska N., 2019). These live-streaming platforms have greatly improved the professional skills of new professional farmers and increased their family income, which could be allocated to the education expenses of their children in turn as the human capital accumulation (Huang C., Jin H., Zhang J., Zheng Q., Chen Y., Cheung S., Liu C., 2020; Stoyanets N., Zetao Hu, Lichen N., Junmin C., 2020; Bilan Y., Lyeonov S., Stoyanets N., Vysochyna A., 2018).

3.3. Effects of Preschool Education in Rural Human Resource Development

In the knowledge economy era, education is the most considerable way to enhance the endogenous power of human capital. Also, education is the key to improve the poverty reduction effect of rural human resource development and achieve sustained poverty elimination in rural areas. Talent cultivation in poverty-stricken areas should be regarded as the top priority of sustainable poverty reduction in the post-poverty era, including preschool education, childcare, and preschool teacher training.

3.3.1. Basic Function of Preschool Education in Rural Human Resources Development

Human resources are the primary resources for economic and social development. Basic education is the foundation of human resources system construction and the ultimate way

to improve the total and quality of human resources. Therefore, the level of basic education directly affects human resources development and the accumulation of human capital. As the beginning of basic education and lifelong education, preschool education is conducive to break the inter-generational transmission of poverty and achieve sustained poverty elimination. Also, preschool education is always regarded by many governments as a dominant measure of anti-poverty because that effective intervention in early childhood can fundamentally change the plight of children in the underprivileged families and help them achieve academic success and become highly productive adults.

Since the reform and opening up in 1978, China's preschool education has made great progress. In 2019, compared with 1978, the total number of kindergartens nationwide had increased by 71.5%, the number of children enrolled in kindergartens had increased by 4.98 times, and the gross enrollment rate of preschool education had increased by 72.8% (Fig. 3). The gradual development and popularization of preschool education in China could promote human resources development and increase the accumulation of human capital, and then improve people's social serviceability and value creativity.

3.3.2. Preschool Education and Rural Female Human Resources Development

With the popularization of preschool education, females no longer need to give up their jobs to be specialized child caregivers. The original function of preschool education has been fulfilled, which liberates the female labor force by providing professional care and education for their children. In 2016, China implemented the "universal two-child policy" to replace the "one-child policy," which stipulates that a couple could have two children to cope with the trend of the aging population and declining birthrate. Subsequently, the number of new births in 2016 and 2017 exceeded 17 million, a great increase from 2015. The concentrated release of the childbearing age population's accumulated willingness to reproduce in the early stage of the policy is of great significance to the optimization of population structure and the human resources strategy of China. However, the number of new births and the birth rate in China have continued to de-

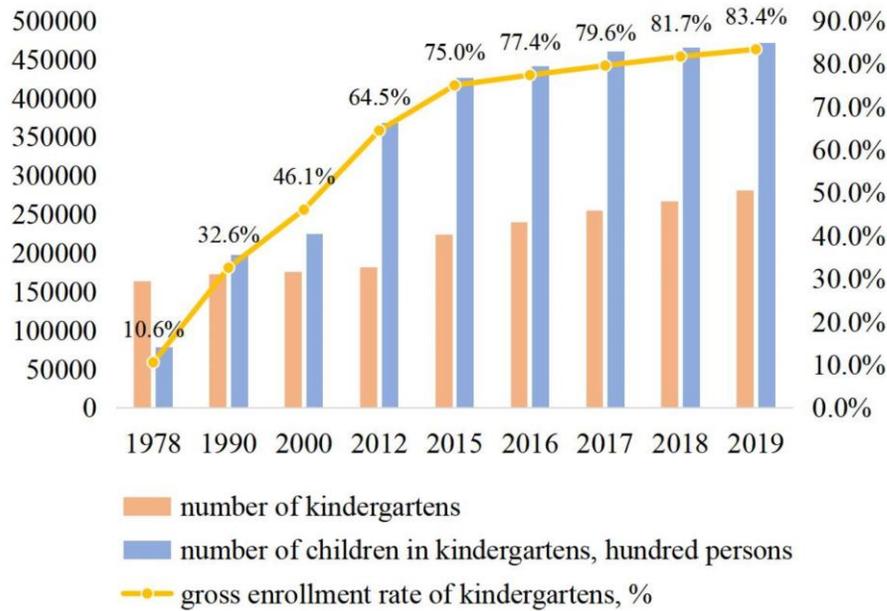


Fig. (3). The scale of preschool education and gross enrollment rate in China since 1978.

Source: formed by the authors (Ministry of Education of China).

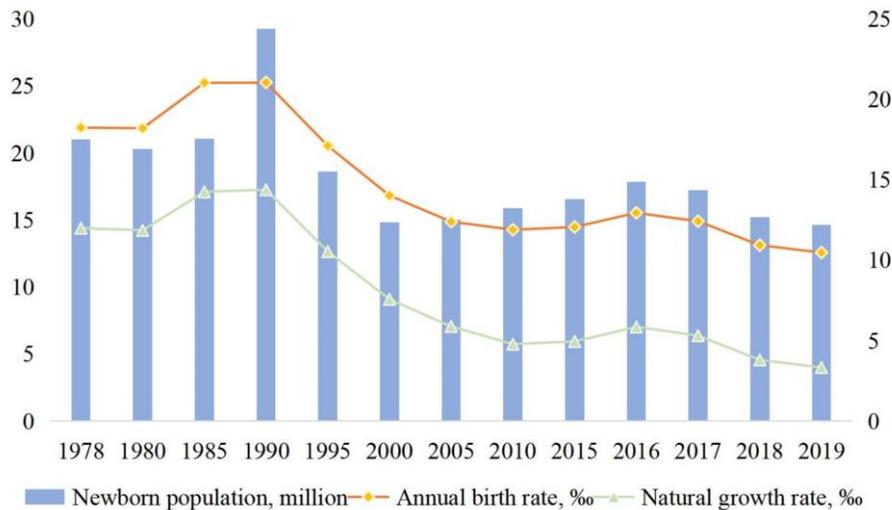


Fig. (4). The situation of newborn population and population growth since 1978.

Source: formed by the authors (State Council of China).

cline rapidly since 2018. In 2019, the number of births was only 14.65 million, and the birth rate dropped to 3.34%, which is already at a low level (Fig. 4). Low fertility has re-emerged as a realistic problem in China. Research shows that the core and most critical reason for most childbearing age couples who give up childbearing lies in the lack of relevant supporting preschool education policies and systems (Pang L., 2021). That is to say, the contradiction between childcare and work and the pressure brought by the rising living cost led to the decrease of childbearing age couples' fertility intention. Although the decrease of fertility intention is conducive to maintaining the original advantages of the female labor force, it is not beneficial to improving the balanced development of population structure and the problem of population aging.

To further improve the population development strategy and maintain the advantage of human resources, China began implementing the "three-child policy" in May 2021, stipulating that a couple could have three children. As for the child-raising problem that plagues the childbearing age couples, the Chinese government has made ambitions to establish supporting policies and mechanisms for preschool education to solve the contradiction between women's work and childcare, especially improving inclusive childcare institutions and related policy guarantees for 0-3 years old. Childcare services could offer parents the opportunity to outsource some of their childcare responsibilities and thus to free up more time for paid work (Ciccia R., Bleijenbergh I., 2014). Also, the establishment of inclusive child care and education service system could eliminate the negative impact of the

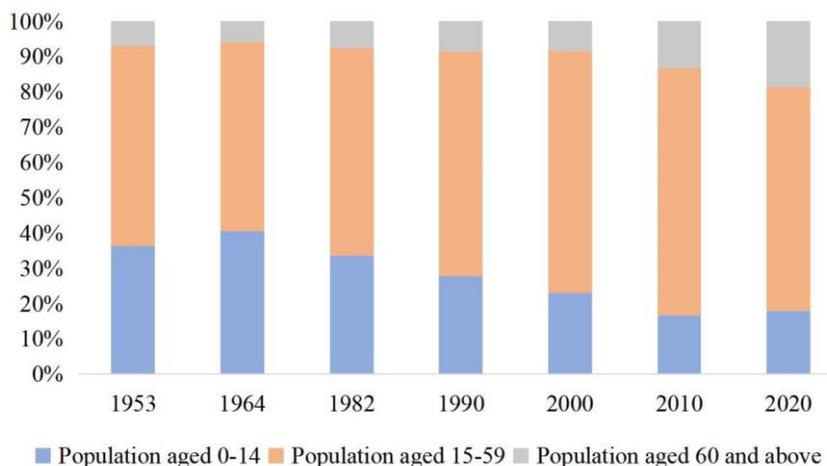


Fig. (5). Comparison of age structure of every population census in China.

Source: formed by the authors (State Council of China).

aging population and declining birthrate on total human resources and contribute to the human resources development of rural female laborers.

At present, China's inclusive preschool education resources still have the problem of inadequate and unbalanced development, especially the resources in poverty-stricken areas that are relatively insufficient. Also, the development of the childcare system for children aged 0-3 years is relatively slow. Limited availability of preschool services could restrict the participation of females who have children in the labor market (Cizauskaite A., Gruzevskis B., 2018). Therefore, the improvement of the inclusive child care and education system with related policy guarantees brook no delay. On the basis of adhering to the basic direction of public welfare and inclusive development, China should guide the participation of multiple parties in the society and explore diversified investment channels to establish a multi-subject and diversified infant care service supply system, to improve the existing public preschool education service system. The relevant standards and institutional guarantees for the practitioners of child care institutions should be strictly formulated so that the parents of infants and young children could engage in production activities at ease.

3.3.3 *Preschool Education and Human Resources Development of Rural Remained Elderly*

Due to the special national conditions in China, the main way for children to receive education at the age of 0-3 before entering kindergarten is inter-generational education. That is, children are mainly taken care of by their grandparents. The popularization of preschool education, especially the construction of the inclusive childcare service system for children aged 0-3 years, could liberate substantial retirees over 60 years old to exert their unique advantages in human resources. According to China's seventh national census in 2021, the number of people aged 60 and above is 264.02 million, accounting for 18.70% of the total population. Among them, the population aged 65 and over is 19.064 million, accounting for 13.50%. Compared with the previous six censuses, the proportion of population aged over 60 showed

a significant upward trend (Fig. 5). The further aging of the population brings challenges as well as opportunities. The elderly group has accumulated profound intelligent capital and extensive friend-sourcing, which could exert an irreplaceable influence on rural economic and social development.

Therefore, based on the experience of developed countries, the retirement age of rural elderly with specialized jobs could be appropriately extended by their wishes and health conditions. Also, rural communities could vigorously develop services suitable for the rural remained elderly. Firstly, the elderly in rural areas could be promoted to participate in agricultural technical service projects. In view of their advantages of agricultural knowledge accumulation and production experience, the elderly should be engaged in traditional agricultural production guidance, technical services, or development consultants in rural communities, such as the inheritance of traditional crafts like paper cutting and bamboo weaving. In agricultural production, they could adopt the way of mentoring, which is a traditional way of training rookies with experienced veterans, to contribute to rural economic and social development. Secondly, the rural elderly could be set up to participate in community service projects. According to the advantages of leisure time and professional skills of the elderly, rural community love club should be established to allow them to participate in community public welfare projects more, for example, the household appliance repair, wedding and funeral affairs assistance, daily household service, health care publicity, community security maintenance and rural market management. Thirdly, the rural elderly could also be absorbed to establish civil dispute mediation organizations. Due to their prestige, clan status, and interpersonal influence, the rural elderly could take part in the coordination of civil disputes to exert their unique advantages in dealing with neighborhood disputes.

3.3.4 *Human Resources Development of Rural Preschool Education Teachers*

Preschool teachers are the most important human resource for promoting Education for Sustainable Development in

rural areas (Pamuk D.K., Olgan R., 2020). The severe shortage of preschool teachers has also created new career opportunities for the rural population. To alleviate the real dilemma of insufficient teachers in rural preschool education, China has issued numerous documents to guide local governments to strengthen the construction of kindergarten teachers, such as “Standards for the Staffing of Kindergarten Teachers,” “Professional Standards for Kindergarten Teachers,” “Professional Standards for Kindergarten Principals” and “Opinions on Strengthening the Construction of Kindergarten Teachers.” (Xia Y., Qu D., Stoyanets N., Zhao H., 2022). Since 2010, China has continuously increased the training of preschool teachers for rural areas and expanded the enrollment of preschool education majors for state-funded normal university students. These students trained on public funds are exempt from tuition and accommodation fees and are given additional living allowance during their study period. In return, they need to be engaged in preschool education for more than six years in kindergartens below the county and district level after graduation. Meanwhile, local governments have adopted preferential policies, such as providing living allowances and subsidies, to attract state-funded normal university students to work in rural areas for a long time or life. It could not only ensure that children from the underprivileged families in rural areas be able to afford good universities but also continuously develop the huge rural population into human educational resources so that they could return hometowns to better serve rural construction. Besides, the government needs to set up exchange programs for urban and rural kindergarten teachers to strengthen the professional ability of rural preschool education teachers, so as to narrow the development gap between urban and rural preschool education (Yue H., 2018).

Furthermore, qualified non-normal major graduates are encouraged to engage in preschool education. For rural non-normal major graduates who meet the entry requirements, the qualification training of childcare staff is provided free of charge. They could engage in childcare work in kindergartens after obtaining the qualification certificate. Other employees in rural kindergartens, including logistics staff, security staff, and medical staff, could also be recruited locally from the literate rural surplus labor force and medical personnel. They can take up posts or part-time jobs after passing the training and assessment. The posts in kindergartens provide new careers for the employment of rural surplus labor. Moreover, it is stipulated that kindergarten principals and teachers could regularly receive free training at the national level and professional training at the provincial level. These measures provide significant amount of opportunities for rural surplus labor, which is conducive to the human resources development of rural preschool education teachers and the high-quality development of rural preschool education.

4. CONCLUSION

This study starts with a review of China's achievements in poverty alleviation, which have made significant contributions to building a moderately prosperous society in all respects and the global poverty reduction. China has not only lifted all the rural poverty population out of poverty under the current standard but also significantly accelerated the

pace of economic strength, infrastructure construction, and social development in rural poverty-stricken areas. The development of rural human resources, including agricultural and non-agricultural labor resources, could facilitate the rural poverty population achieving sustained poverty elimination by improving their social comprehensive capacity. There are four representative models of human resource development of rural agricultural labor force, including green certificate model, enterprise-driven model, entrepreneurship-driven model, and resource attraction model. Also, there are many ways to develop the human resources of the rural non-agricultural labor force, such as guiding training, skill training, and transfer employment training. Since the outbreak of the COVID-19 epidemic, the development of the live-streaming e-commerce model for poverty alleviation has also promoted rural laborers to become new professional farmers in the internet era by participating in live-streaming skills training.

Based on the results stated above, this study mainly explores the effects of preschool education in promoting poverty alleviation in the post-poverty era from the perspective of human resources development, which is mainly manifested as internal effect and spillover effect. First of all, the internal effect is mainly reflected in the fact that preschool education has exerted the foundational function in rural human resources development and human capital accumulation as an important part of basic education. That is, effective intervention in early childhood by preschool education could fundamentally change the plight of children in the underprivileged families and help them achieve academic success and become highly productive adults. The spillover effect of preschool education is mainly embodied in that an impeccable inclusive childcare service system could liberate the rural female labor force and the remained elderly, turning the original child caregivers into potential laborers. The contradiction between work and childcare of rural female laborers could be eliminated if their childcare responsibilities could be outsourced to professional childcare facilities. Also, the elderly could engage in service projects set up in rural communities within their capacities, such as agricultural production technical guidance and consultant, community public welfare projects, and civil dispute coordination. Moreover, the teacher training model of preschool education with Chinese characteristics provides plenty of opportunities for rural laborers to participate in preschool education, which could promote rural human resources development.

In conclusion, this study reviewed the existing documents, regulations, and relevant data to reproduce China's significant achievement on poverty alleviation and the human resource development models conducive to rural poverty alleviation. Based on these results, we reveal the effects and potential of preschool education in realizing sustained poverty elimination in rural poverty-stricken areas from the perspective of human resource development. Our findings are consistent with previous research on poverty alleviation through education, which demonstrates the decisive role of education in poverty alleviation. The difference is that this study is carried out from the perspective of rural human resources development. Moreover, this study is focused on preschool education, which is a basic area of education, rather than vocational education and adult education in previ-

ous research. Unfortunately, the current inclusive childcare and education service system in China still needs to be further improved, which is instantiated on the small proportion of inclusive childcare institutions and the inadequacy of relevant supporting policies and systems. In future studies, researchers could use empirical methods to further explore the effects of preschool education on human resources development and sustained poverty elimination. Also, the construction and development of the inclusive childcare and education service system for children under the age of three could be focused on to provide references for the government to accelerate the preschool education public service system construction.

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REFERENCES

- Alkire, S., & Foster, J. (2011). Counting and multidimensional poverty measurement. *Journal of Public Economics*, 95(7), p. 476-487. doi: <https://doi.org/10.1016/j.jpubeco.2010.11.006>.
- Alkire, S., & Santos, M.E. (2014). Measuring acute poverty in the developing world: robustness and scope of the multidimensional poverty index. *World Development*, 59, p. 251-274. doi: <https://doi.org/10.1016/j.worlddev.2014.01.026>.
- Alkire, S., Roche, J.M., & Vaz, A. (2017). Changes over time in multidimensional poverty: methodology and results for 34 countries. *World Development*, 94, p. 232-249. doi: <https://doi.org/10.1016/j.worlddev.2017.01.011>.
- Asrarulhaq, M. (2015). Human resource development in Pakistan: evolution, trends and challenge. *Human Resource Development International*, 18(1), p. 97-104. doi: <https://doi.org/10.1080/13678868.2014.979004>.
- Bilan, Y., Lyeonov, S., Stoyanets, N., Vysochyna, A. (2018) The impact of environmental determinants of sustainable agriculture on country food security. *International Journal of Environmental Technology and Management* this link is disabled, 21(5-6), p. 289-305. doi: <https://doi.org/10.1504/IJETM.2018.100580>
- Bjorvatn, K., Falch, R., & Hernaes, U. (2016). Gender, context and competition: experimental evidence from rural and urban Uganda. *Journal of Behavioral and Experimental Economics*, 61, p. 31-37. doi: <https://doi.org/10.1016/j.socec.2016.02.001>.
- Ciccia, R., & Bleijenbergh, I. (2014). After the male breadwinner model? childcare services and the division of labor in European countries. *Social Politics*, 21(1), p. 50-79. doi: <https://doi.org/10.1093/sp/jxu002>.
- Cizauskaite, A., & Gruzevskis, B. (2018). The role of preschool education services on parents employment in Lithuania. *Socialine Teorija Empirija Politika Ir Praktika*, 17, p. 74-91. doi: <https://doi.org/10.15388/STEPP.2018.17.11932>.
- Escobal, J., Favareto, A., Aguirre, F., & Ponce, C. (2014). Linkage to dynamic markets and rural territorial development in Latin America. *World Development*, 73(10), p. 44-55. doi: <https://doi.org/10.1016/j.worlddev.2014.09.017>.
- Gryshova, I., Koshkald, I., Demchuk, N.; Stebliuk, N.; Volosova, N. (2019). Strategic Imperatives of Managing the Sustainable Innovative Development of the Market of Educational Services in the Higher Education System. *Sustainability*, 11, P.7253. <https://doi.org/10.3390/su11247253>
- Huang, C., Jin, H., Zhang, J., Zheng, Q., Chen, Y., Cheung, S., & Liu, C. (2020). The effects of an innovative e-commerce poverty alleviation platform on Chinese rural laborer skills development and family well-being. *Children and Youth Service Review*, 116, 105189. doi: <https://doi.org/10.1016/j.childyouth.2020.105189>.
- Huang, D., Ding, S., & Tan, C. (2021). Poverty reduction and spatial spillover effect of rural labor transfer: based on the analysis of provincial panel data. *Chinese Journal of Agricultural Resources and Regional Planning*, URL: <http://kns.cnki.net/kcms/detail/11.3513.S.20210713.1407.032.html>.
- Latif, A., Nazar, M.S., Khan, T.M., & Shaikh, F.M. (2011). Human resource development: strategies for sustainable rural development. *Asian Social Science*, 7(6), p. 159-162. doi: <https://doi.org/10.5539/ass.v7n6p159>.
- Lengyel, P., Füzési, I., Péntek, A., & Herdon, M. (2016). Human resource development using e-learning for Hungarian agricultural experts. *Journal of Agricultural Informatics*, 7(1), p. 94-102. doi: <https://doi.org/10.17700/jai.2016.7.1.262>.
- Liu, J. (2017). Development research on rural human resources under urban-rural integration. *Agro Food Industry Hi-tech*, 28(3), p. 2974-2978. URL: <https://www.wobofscience.com/wos/alldb/full-record/WOS:000405993200261>.
- Liu, Y., Guo, Y., & Zhou, Y. (2018). Poverty alleviation in rural China: policy changes, future challenges and policy implications. *China Agricultural Economic Review*, 10(2), p. 241-259. doi: <https://doi.org/10.1108/CAER-10-2017-0192>.
- Liu, Y., Liu, J., & Zhou, Y. (2017). Spatio-temporal patterns of rural poverty in China and targeted poverty alleviation strategies. *Journal of Rural Studies*, 52, p. 66-75. doi: <http://doi.org/10.1016/j.jrurstud.2017.04.002>.
- Luo, Y., & Yu, J. (2021). The Chinese system as the key to “China’s Miracle” in the global fight against poverty. *Contemporary World and Socialism*, 1, p. 38-46. doi: <http://doi.org/10.16502/j.cnki.11-3404/d.2021.01>.
- Lyulyov, O., Pimonenko, T., Stoyanets, N., & Letunovska, N. (2019). Sustainable development of agricultural sector: Democratic profile impact among developing countries. *Research in World Economy*, 10(4), p. 97-105. doi: <https://doi.org/10.5430/rwe.v10n4p97>
- Ministry of Education of China. URL: http://www.moe.gov.cn/jyb_sjzl/sjzl_fztjgb/202005/t20200520_456751.html.
- National Bureau of Statistics of China. URL: <http://www.stats.gov.cn/tjsj/ndsj/2020/indexch.htm>.
- Njoya, E.T., & Seetaram, N. (2017). Tourism contribution to poverty alleviation in Kenya: a dynamic computable general equilibrium analysis. *Journal of Travel Research*, 57(3), p. 513-524. doi: <http://doi.org/10.1177/0047287517700317>.
- Pamuk, D.K., & Olgan, R. (2020). Comparing predictors of teachers’ education for sustainable development practices among Eco and Non-Eco preschools. *Egitim Ve Bilim-Education and Science*, 45(203), p. 327-345. doi: <https://doi.org/10.15390/EB.2019.8774>.
- Pang, L. (2021). The development of inclusive childcare and education services system for infants and young children. *Educational Research*, 42(3), p. 16-19. URL: <http://www.shstyxh.com/fileserver/ueditor/jsp/upload/file/202103071615119562297006541.pdf>.
- Partridge, T. (2015). Rural intersections: resource marginalization and the “Non-Indian Problem” in highland Ecuador. *Journal of Rural Studies*, 12, p. 1-13. doi: <https://doi.org/10.1016/j.jrurstud.2015.12.001>.
- Peou, C. (2016). Negotiating rural-urban transformation and life course fluidity: rural young people and urban sojourn in contemporary Cambodia. *Journal of Rural Studies*, 44, p. 177-186. doi: <https://doi.org/10.1016/j.jrurstud.2016.02.002>.
- State Council of China. URL: http://www.gov.cn/guoqing/2021-05/13/content_5606149.htm.
- Stoyanets Nataliya, Zetao Hu, Lichen Niu, Junmin Chen (2020) Managing sustainability development of agricultural sphere based on the entropy weight TOPSIS model. *International Journal of Technology Management & Sustainable Development*. Volume 19 Number 3 P. 263-278. doi: https://doi.org/10.1386/tmsd_00026_1
- Tan, M., Liu, Q., & Huang, N. (2020). Path model and countermeasures of China’s targeted poverty alleviation and rural revitalization. *Revista De Cercetare Si Interventie Sociala*, 70, p. 312-332. doi: <http://doi.org/10.33788/rcis.70.19>.
- Tu, B., Huang, C., & Sorensen, J. (2020). Effects of education philanthropy on well-being of low-income and gifted students in China. *Children*

and Youth Services Review, 108, 104659. doi:
<https://doi.org/10.1016/j.chilyouth.2019.104659>.

Xia, Y., Qu, D., Stoyanets, N., & Zhao, H. (2022). Policy evolution of personnel management in Chinese educational institutions: A comprehensive policy circle analysis. *Problems and Perspectives in Management*, 20(4), 544-559. doi:

[https://doi.org/10.21511/ppm.20\(4\).2022.41](https://doi.org/10.21511/ppm.20(4).2022.41)

Yue, H. (2018). Balanced allocation method of preschool education resources based on coordinated development of urban and rural areas. *Educational Sciences-Theory & Practice*, 18(6), p. 3599-3609. doi:
<https://doi.org/10.12738/estp.2018.6.272>.

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