

Problem and Advice of Rural Poverty-alleviation in China Amid the Epidemic of Covid-19

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ABSTRACT Covid-19 is a mild to severe respiratory illness caused by a coronavirus that is transmitted chiefly by contact with infectious material or with objects or contaminated surfaces. It is characterized mainly by fever, cough, and shortness of breath, pneumonia, and respiratory failure. During the outbreak, China knew Covid-19 very little and associated it with no probability of causing a health crisis. The study aims to reveal the impact of the virus in the rural areas of China. The objective of the study was to provide advice on the socio-economic impact mitigation. This study used qualitative approaches. Consequently, content analysis of the documents and records was used to aid the study's data analysis. The study revealed that Covid-19 has a high chance of disrupting global economies. It is recommended that governments craft policies and economy plan to protect both their economies and citizens against the virus.

INTRODUCTION

Covid-19 is a mild to severe respiratory illness caused by a coronavirus that is transmitted chiefly by contact with infectious material or with objects or contaminated surfaces (Merriam-Webster 2020). Recent studies showed that this virus has a catastrophic socio-economic impact within a short period (Mehta et al. 2020). According to Mehta et al. (2020), Covid-19 had caused 3.7 percent global mortality compared to 1 percent that influenza has since March 2020. Other research studies claim that the Covid-19 pandemic has resulted in over 1.4 million confirmed cases and over 83,000 deaths globally (Nicola et al. 2020).

Since December 2019, several viral cases of pneumonia caused by unknown cause several were discovered in several hospitals in Wuhan City (Hui et al. 2020; Read et al. 2020). Read et al. (2020) reported that the Hubei province of China had similar Severe Acute Respiratory. These symptoms and signs were likened with the SARS outbreak in 2003 (Read et al. 2020). The 2003 SARS outbreak impacted adversely on the Chinese economy and the Chinese people's safety negatively affected. Recently, the unknown virus pneumonia was verified as a novel coronavirus linked to the Wuhan Huanan seafood mar-

ket (Xu F et al. 2020), where the wild animal was sold (Hui et al. 2020), nevertheless, the genuine origin of this kind of new coronavirus is unclear until now.

Review of the Spread and Mitigation of COVID 19 in China

In January 2020, the Chinese National Health Commission (NHC) sent two high-profile expert teams respectively to understand and grasp the change of epidemic and condition of infection on novel coronavirus via on-site inspection in Wuhan (Health Emergency Office of National Health Commission 2020). On January 20, 2020, Nanshan Zhong, the leader of the high-level expert group of the National Health Commission and academician of the Chinese Academy of Engineering, uncovered that new coronavirus existed person-to-person (Yue et al. 2020) transmission. On the same day, the World Health Organization (WHO) named it as 2019 Novel Coronavirus (Wang et al. 2020), namely "2019-nCoV" (Chen and Cao 2020).

In order to prevent the epidemic from further aggravating and worsening, to prevent more people from leaving Wuhan due to the Spring Festival Transport (Qin et al. 2020), as well as to impede more losses, Wuhan completely closed

the departure corridor at 10:00 on January 23, 2020 (Xu X et al. 2020). Subsequently, more than 30 provinces and municipalities in China, including Beijing and Shanghai, have initiated first-level response (Chen and Cao 2020) to Major Acute Public Health Emergency. Zhang (2020) stated that WHO announced the New Coronavirus Pneumonia (2019-nCoV), as a “public health emergency of international concern” on January 30, 2020, and issued interim recommendations simultaneously.

On February 8, 2020, NHC issued a notice on the temporary naming of new coronavirus pneumonia at a conference held by State Council’s Joint Prevention and Control Institute: pneumonia contracted by new coronavirus is named unanimously as “New Coronavirus Pneumonia” (Yang and Hou 2020), abbreviating “NCP.” On February 11, 2020, Dr. Tedros Adhanom Ghebreyesus, WHO Director-General, announced that the new coronavirus was named “Covid-19” (Bai et al. 2020). Research and Innovation Forum (Guangming Net 2020). On February 21, 2020, China’s National Health Commission revised the English name of Novel Coronavirus Pneumonia as “Covid-19”, being consistent with the World Health Organization’s nomenclature. Nevertheless, the Chinese name remained the same.

According to the data released by the National Health Commission in Table 1, as of 24:00 on February 18, as well as reports from 31 provinces (autonomous regions, municipalities) and the Xinjiang Production and Construction Corps in China, there were 57,805 confirmed cases (among which 11,977 were severe cases), and the cumulative cases cured and discharged were 14,376 in Table 1 (Health Emergency Office of National Health Commission 2020). The cumulative death cases were 2,004. A cumulative report of 74,185 confirmed cases was published, and there were 5,248 suspected cases currently. A

total of 574,418 close contactors were traced, and 135,881 close contactors were still in medical observation (Health Emergency Office of National Health Commission 2020).

In this section mentioned above, the background and development of Covid-19 had been stated. The problem and challenge of rural poverty alleviation caused by Covid-19 will be explained in the section of problem and objective. The impact of rural poverty-alleviation in China on Covid-19 will be shown after problem and objective. The last part narrates the advice of rural poverty-alleviation in China amid Covid-19.

Problem Statement and Objective

The new coronavirus pneumonia out-broke during the Spring Festival, the Chinese Lunar New Year, is the peak time for consumption, which impacted the Chinese economy at every level largely and predominately. In the influence of the country’s call for home-quarantine and limitation of the people movement, folks and masses cannot go outside for shopping or conducting in minimize unnecessary consumption, which will have a particularly adverse effect on Chinese economic growth in the short term in terms of third industry. It was impacted exceptionally and extraordinarily on a variety of industries, such as catering, tourism, rural tourism, rural economic development, entertainment, film, retail, traffic and transportation, education and training, and the outbreak of novel coronavirus. A large number of industries had entered into a downturn time and faced challenges vast and unprecedented.

In accordance to avoid and prevent cross-infection of Covid-19, the village had been shut down, and the roads had been blocked. Furthermore, the measures, such as road impeded, no entry for strangers, and people from Wuhan city,

Table 1: Update on the epidemic situation of new coronavirus pneumonia as of 24:00 on February 18, 2020

<i>Confirmed case cumulative</i>	<i>Confirmed case</i>	<i>Suspected case</i>	<i>Discharged case</i>	<i>Dead</i>	<i>Close contactors being traced</i>	<i>Close contactors in medical observation</i>
74,185	57,805	5,248	14,376	2,004	574,418	135,881

preventing the transporting of irrelevant vehicle, had been put in the position conducive to deterring the further outbreak and expansion of the 2019-nCoV. However, it was inconvenient for enterprises to resume production compared with the previous time and order and for rural migrant workers to go back to their work position in city and municipality. In cities, the administrative staff, official as well as volunteer strictly implement the policy of strict prevention and control of the novel coronavirus, which prohibits migrant workers from entering the community, resident park or complex, making it difficult for returning migrant workers and other workers from the rural area to go back home and return to work. All of these current conditions, mentioned above, have brought significant challenges to the full realization of rural poverty alleviation goals.

The expansion and outspread of the new coronavirus pneumonia epidemic situation were being strictly controlled and prevented throughout China. The prevention and control of the epidemic situation were given top priority. Leaders and managers in many cities and provinces personally direct and coordinate the various departments and divisions to carry out the strict prevention and control of new coronavirus pneumonia. During the period of Covid-19 outspread, comprehensive poverty alleviation in China's rural area may be significantly affected by the outspread of the epidemic.

As of the end of March, there was little research studying the impact of Covid-19 on the socio-economic sphere in China and all over the world. This study aims to reveal the impact of the novel coronavirus on poverty-alleviation in the rural areas of China. The objective of the study was to provide advice on the socio-economic impact mitigation. The research method, data analysis, discussion and advice will be explained in the following section.

MATERIAL AND METHODS

Research Design

The study aims to reveal the impact of the virus in the rural areas of Wuhan. The objective of the study was to provide advice on the socio-economic impact mitigation. A descriptive qual-

itative research design was used in this study (Haex et al. 2020). Amongst these qualitative research methods, narrative methods, and phenomenology were opted for. The spread and outbreak of COVID 19 was a phenomenon under consideration while the case narrated was the outbreak in Wuhan city. This design was coupled with the historical research that seeks to explore the individual stories describing the spread of this pandemic. Also, this research explored the socio-economic impact of the coronavirus using secondary descriptive statistics.

Data Collection

An open-ended questionnaire was used to collect the qualitative data from the two focus sessions comprising of eight individual experts in each session. These sessions were organized in sequential order, and they took place in Wuhan city. Each session took eight hours and was well represented by health practitioners, rural specialists, and community leaders. The selection of the participants was a result of purposive and convenient sampling. The purpose of focus sessions was to explore the nature, the character of the COVID-19, and the potential impact of the coronavirus in the rural areas of China using the Wuhan area as the case study. Furthermore, the study interviewed ten more experts using face to face interviews. Other data presented was collected through observations of the government's actions and media reports.

Data Analysis

All focus sessions were audiotaped, coded, and transcribed. The field notes resulting from the focus sessions, interviews, and observations were recorded, and provide meaning to the reported experiences. Paraphrasing was used during and after each data collection technique to determine the participant's accuracy and correct interpretation. All interviews were analysed using directed content analysis. The themes were used as a priori coding themes. During this meeting, participants received briefings on COVID 19 impacts and were asked to reflect on the briefing.

Criteria of credibility, transferability, dependability, confirmability, and reflexivity on the study were continuously monitored to strengthen the

trustworthiness of this study (Haex et al. 2020). The credibility of the study was improved by presenting the results among the randomly selected participants to verify and authenticate the results' correct interpretation and completeness. The transferability was enhanced by the full description of the context of the research, setting, sample, demo graphics, and exemplary quotes.

OBSERVATIONS AND DISCUSSION

The analysis of the impact of rural poverty alleviation and -eradication in China on Covid-19 is illuminated as follow:

The Covid-19 Epidemic Posed a Huge Challenge for Migrant Workers to Return to the City from a Rural Area

According to statics provided by the National Bureau of Statistics, the total number of migrant workers nationwide in 2019 was close to 291 million, of which 60 percent were migrant workers who went outside their Hometown to work, and 40 percent of them were local migrant workers (Zhang et al. 2020a), illustrated in Figure 1. Nationwide, migrant workers were mainly outflowing from the western region and inflows into the eastern region. It is also a significant province for Hubei in terms of migrant workers.

The outbreak of the new coronavirus in Wuhan city, China has extended the holiday of Spring Festival promptly in which governments at all levels, including central, provincial, municipal, the local government has responded quickly and timely, delaying the start time of enterprises and institutions. Traffic control was put in place at the varying level on inter-provincial, inter-city, county-level, and even villages and. In this agitated situation of Covid-19 prevention and control across the country, many migrant workers were unable to work outside the region in the short term.

The employment status quo of migrant workers in the rural area was related to the achievement of the goal of building a well-off society in an all-round way, poverty alleviation, and rural revitalization in the vast and broad rural area. This outbreak of new coronavirus pneumonia epidemic posed a considerable challenge to the general construction of a well-off society in the rural areas in 2020, the realization of poverty alleviation and rural revitalization.

The Impact Badly of Logistics Unblocking on the Poverty Alleviation Project Under the Covid-19

After the outbreak of the new coronavirus, different government departments, such as the State Council control, provincial administration,

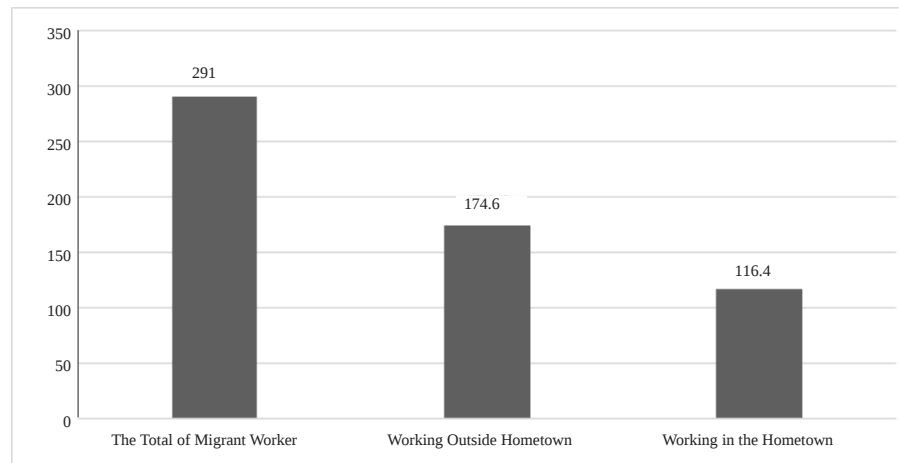


Fig. 1. The number of migrant workers in total, working outside and in the hometown in 2019 (The unit is million)

local government, carried out a flurry of measures including setting up checkpoints, persuasion at the entrance and exiting of highway, as well as traffic control in order to prevent cross-regional-infection and cross-infection of the Covid-19. Practitioners of the poverty alleviation project cannot return to their position in time. The vehicles of the logistics enterprises of the poverty-alleviation project cannot get through timely and swiftly, making it difficult for the poverty alleviation project to continue.

The Outbreak of Covid-19 Posed Difficulties for Resumption and Reworking of Poverty-alleviation Projects and Running of Poverty-Alleviation Enterprises

Affected by the outbreak of the novel coronavirus epidemic, the vast majority of people in China were demanded to implement home isolation. Furthermore, strict management measures in the majority of communities in the cities and villages in rural areas such as entry registration and disinfection were put into effect, so migrant workers who want to return the city cannot enter urban communities where they usually live work in the city. On the other hand, measures implementing, which included to shut down the village in the rural area as well as block the road in both rural and urban territory and to set up a checkpoint at high-speed intersections to encourage the return of external vehicles, has prevented many migrant workers from returning to the position of poverty alleviation projects and enterprise of poverty assisting.

All of those mentioned above had brought significant obstacles to the implementation, running, and operation of poverty alleviation projects. At the current atmosphere of an extremely virus outbreak, the government units at all levels regarded the joint prevention and control of the novel coronavirus as the primary and preliminary task of government work current, as well as an essential basis for selecting and promoting cadres. The work, such as the application, review, as well as resumption, running, and operation of work on poverty alleviation projects, had been putting in a secondary position to somewhat extent. It is an unfavourable condition for the overall tone of work to achieve poverty alleviation in rural areas. Besides, the clo-

sure and blockage of roads caused and weak logistics and transportation affected by it have also brought significant challenges to the resumption and re-operation of poverty reduction projects and the running of the enterprise's poverty alleviation.

The Huge Impact of the Outbreak of Covid-19 on the Breeding Industry in Rural Areas

Due to the effect of the new coronavirus, the measures and means of joint-prevention and joint-control such as villages shutting down and roads blockage and closing, delaying resumption and operation of livestock's plants and feed factories, suspending live poultry market trading, and closing slaughterhouses of poultry and domestic animal, etc., have impacted largely and exceedingly on breeding industry. As a result, there is no available and enough feed for livestock and poultry used by farmers and poultry plants. Furthermore, mature poultry cannot be slaughtered while there is nowhere to buy the young birds. It is also difficult to operate normally for the activity of the production and operation of the breeding industry.

For the chicken industry, some farmers and plants of poultry were eager to sell because of feed shortages. Broiler chicken in some plants have reached the slaughter period but cannot be butchered and sold usually. The supply amount of broiler chicken during this period is much more significant than the current slaughter ones. All of these reasons have led to the plummet in price on poultry. Moreover, due to traffic restrictions and blockage, chicks in the hatchery cannot be transported and sold smoothly and timely, resulting in many detentions and deaths of chickens, which led to substantial chain reactions and losses in the breeding industry in the rural area.

Also, the price of pock was extraordinarily high in 2019 with the affection of the African swine fever virus. The sharp rise in pock prices had greatly affected the hog industry in China, which has also significantly affected the daily lives of ordinary people. The unexpected and unprecedented outbreak of the new coronavirus during the current time hit the pig industry mostly and exceedingly again. The outbreak of Covid-19 forced emerging swine production farms to be suspended and greatly affected the

confidence of the swine production farms. All of these situations discussed above made the recovery of pig production capacity and the recovery of pork prices be out of reach shortly.

The Outbreak of Covid-19 had led to a Significant Reduction in the Income of Migrant Workers

The increase in the income of rural farmers is directly related to the realization of the tasks and goals of building the moderately prosperous society in an all-round way, achieving poverty alleviation, and eliminating absolute poverty. As of now, it is not yet possible to accurately estimate the impact of the Covid-19 on farmers' income. Nevertheless, there was no doubt that many farmers of livestock and poultry, seasonal agricultural planters, leisure agricultural operators, etc. have been stricken hard, so the economic losses are hefty. The peasant families whose primary income source was from migrant workers in the family were also facing the risk of losing their economic sources, reflecting the farmers' income instability and inadequate protection.

The increase in farmers' income was influenced directly and mainly by the outbreak of new coronavirus pneumonia. More than 70 percent of roughly 290 million migrant workers (Zhang et al. 2020a) were unable to return to work due to the blockage and prevention of Covid-19. It would take at least two to three months for the new coronavirus pneumonia epidemic to be controlled entirely. Nearly 200 million migrant workers had been impacted extremely and remarkably on their income. If adding the direct and indirect losses of rural tourism, agricultural, forestry, animal husbandry, and fisheries industries, as well as traffic and transportation, the outbreak of the new coronavirus pneumonia epidemic in 2020 would be an enormous figure for building a moderately prosperous society in all-round respect, poverty alleviation, as well as eliminating absolute poverty. The Covid-19 has brought significant challenges to the overall poverty alleviation in the rural area of China. Furthermore, its sequelae may last for a long time in the future.

Covid-19 Brought Huge Challenges to Agricultural and Rural Development

Since the beginning of the new century, there have been cases of emergencies such as natural

disasters, animal illness, and epidemics, agricultural product quality and safety, as well as the ecological crisis in an agricultural and rural area, in addition to public health events that have affected the country, such as Severe Acute Respiratory Syndrome (SARS). It has impacted profoundly and enormously in the rural economy.

During the period of the new coronavirus epidemic, many villages have adopted measures to shut down their villages and block the roads in order better to win the war of epidemic prevention and control. Many farmers and entrepreneurs, who rent land in the villages, cannot carry in the agri-production materials and goods. Furthermore, agricultural activity and work cannot be carried out smoothly and successfully. There were still many large-scale planters who need a lot of labour or workers during the spring tillage period. Nevertheless, due to the outbreak of Covid-19, it is challenging to seek for employees and workers, so agricultural activities cannot be carried out timely.

The epidemic of new coronavirus pneumonia has a significant impact on agriculture, rural areas, and farmers. From the perspective of agriculture, there was a significant impact on the circulation of agricultural products; the industry of livestock and poultry cannot be run in the right order; it was a considerable problem about unsalable vegetable in vegetable producing area as well as supply insufficient in the demand region; and the problem of insufficient agricultural resources in spring ploughing and operation season. From the farmers' view, this year's income of migrant workers from the rural area would be affected remarkably and hugely in line with the influence of impossibility for working for migrant workers in the period of outbreak of Covid-19 which made it more difficult to fight poverty. From the perspective of rural area, epidemic prevention and control is extraordinarily tricky; agricultural production has been particularly affected; public health issues in the rural district is prominent and outstanding; the problem of rural governance under Covid-19 is severe.

Results and the Advice of Rural Poverty-alleviation in China Amid Covid-19

In the previous section mentioned above, the impact of rural poverty-alleviation in China on

Covid-19 has been stated. In this part, the focus will be on the advice of rural poverty-alleviation in China amid Covid-19. The definite and thorough explanation of it is as follow:

Resolutely Prevent the Spread of Covid-19 to Rural Areas and Publicize Knowledge Prevention About New Coronavirus

As of the end of 2018, there were 36,000 township hospitals in 31,600 townships across China. There are only 1.39 beds per 1,000 rural population in township health centres, and only 1.45 township hospital doctors per 1,000 rural population (Zhang et al. 2020a) illustrated in Table 2.

There was a total of 622,000 village clinics in 542,000 administrative villages across the country, with an average of 2.32 staff in each village (Zhang et al. 2020a), as shown in Table 3. The related medical doctors and practitioners were extremely scarce, and there was almost no medical staff with professional knowledge on prevention and control of new coronavirus pneumonia.

Table 3: The situation quo of village and village clinics in China in 2018

<i>Item</i>	<i>Village</i>	<i>Village clinics</i>	<i>Medical staff/village clinics</i>
Number	542,000	622,000	1.45

It is necessary to strengthen the role of the “navigator” of rural doctors and practitioners and provide them with the necessary professional training on new coronavirus pneumonia. In the rural area, the problems of farmers’ problems with medical treatment is solved by them, with whom they know each other very well and live together. The propaganda and explanation of Covid-19 are conducted well by medical staff in the rural district via which the results would be more effective. The village administration staffs, such as village chief and other grass-roots

managers in a rural area, have long been working in this district, who are familiar with rural customs and tradition, rules and regulations, cultural traditions, and ideological education. The effect will be visible if they carry out the joint prevention and control work of new coronavirus pneumonia.

For example, large speakers in rural areas have become the primary tool to publicize the symptoms, causes, harms, and precautions of new coronavirus pneumonia; the village chief and secretary have become volunteer propaganda volunteers. Moreover, the checkpoints have been set up by them at the intersections in a bid to prevent and control the new coronavirus pneumonia outside the village; Returnees returning from Wuhan and other places would be taken regular temperature measurements and report themselves regularly, once symptoms of new Covid-19 have been diagnosed, the village chief and official should contact the relevant divisions and hospital immediately as well as send them to the hospital for timely hospitalization and treatment.

The active and efficient control and prevention of Covid-19 in rural will have a positive influence on the resumption and re-production of agri-enterprises, spring production, and operation, and the timely return of migrant workers to cities. At the same time, it is conducive and energetic to the healthy development of rural industries, the orderly progress of poverty alleviation, the ordinal employment of migrant workers, and the general increase in farmers’ income.

To Solve the Problem of Poverty Alleviation Projects that is Difficult to Start and Hard to Resume Soon

In line with the conditions for joint prevention and control of the new coronavirus pneumonia epidemic, the relevant sections should actively support, and orderly organize the en-

Table 2: The situation quo of township and township hospital in China in 2018

<i>Item</i>	<i>Township</i>	<i>Township hospitals</i>	<i>Beds/1,000 staff/township hospitals</i>	<i>Medical staff/1,000 staff/township hospitals</i>
Number	31,600	36,000	1.39	1.45

terprises and workers to promote the construction of anti-poverty projects and resume to work as soon as possible. At the government level, the process of project storage and announcement should be appropriately simplified, the bidding process should be speeded up, and the early implementation of the project should be adequate. At the same time, it is encouraged to adopt methods such as the "Work-relief Program" and "One Project One Discuss" to organize poor labourers to participate in the construction of poverty alleviation projects.

On this basis of those mentioned above, the government should guide migrant workers to reasonably arrange the time to return to the city and return to their position, furthermore, to avoid going out blindly during the period of prevention and control of Covid-19. The section of government should strengthen effective and efficient matching among different regions. At the same time, relevant personnel of the government and enterprises should pay close attention to the migrant workers' output areas and track the epidemic situation of the main input areas on time. Moreover, they should make full use of measures incorporating the Internet, mobile phones, WeChat, and other ways to do an excellent job in the centralized release of information on employment, resumption of work, transportation, and epidemic situation. Making full use of the initiative of the "During the novel coronavirus epidemic prevention and control period, migrant workers organized can return free-of-charge using the chartered trains and cars by provincial and local governments and enterprises," the relevant departments and enterprises where conditions permit can provide chartered plane, cars and high-speed trains for migrant workers.

During the company's resumption, the enterprise should do an excellent job of publicizing relevant knowledge and information about new coronavirus pneumonia. The security personnel should be disposed of at the entrance to take the body temperature for the workers. The cluster work should be avoided and inhibited, while the measures such as implementing peak shift work implementing, large meals staggering, talking less should be taken place. The face-to-face meetings should be replaced by video conferences, internet meetings, WeChat group

discussions in a bid to minimize the risk of infection by the new coronavirus epidemic. Once the suspected case is found, the monitors should report it immediately and isolate close contacts to ensure the safety of employees and staff to minimize the influence and loss.

To Solve Actively, the Problem of Poor People Going Out to Work

During the prevention and control of the new coronavirus epidemic, by seizing the opportunity of the current major project construction and resumption and production of enterprises, the enterprise should prioritize to organize employment of poor labourers in rural areas to be employed by the requirements of "batch, orderly, peak-shift." The employment of the poor people in the vicinity should be met and solved by being arranged in the poverty alleviation workshops and public welfare posts, etc. Using accelerating the selection and funding arrangements for poverty alleviation coordination projects as well as strengthening effective docking of labour services, the problem of the migrant worker in the rural area returning to work should be solved and met positively.

The government and enterprise should open up actively employment channels for the reduced labour and promote the employment willingness of them. On the base of the needs of the prevention and control of new coronavirus epidemic, new temporary positions such as cleaning and sanitation, epidemic prevention and disinfection, and patrol duty ought to give priority to the employment of reduced labour from the rural area. Making full use of the initiative of the "During the novel coronavirus epidemic prevention and control period, migrant workers organized can return free-of-charge using the chartered trains and cars by provincial and local governments and enterprises," the relevant departments and enterprises where conditions permit can provide chartered plane, cars and high-speed trains for migrant workers.

At the same time, during the period of epidemic prevention and control, the poor labourer who goes out to work as migrant workers will be given subsidies for transportation and living expenses according to regulations issued by the government. The poverty alleviation workshops

and local enterprises to resume work and production during epidemic prevention and control should prefer to recruit actively rural poor people to work. According to the scale of absorbing rural reduced labour, relevant government incentive policies for relative poverty, alleviation enterprises should be implanted and put into practice according to regulations. Moreover, areas with conditions can increase their support and rewards.

To Ensure Completely the Basic Lives of the Poor People Affected by the New Coronavirus Pneumonia

The targeted assistance measures should be implemented and put into effect timely with existing channels supporting to ensure the essential lives of poor people in the rural area to be not affected, who are the poor people being diagnosed with novel coronavirus pneumonia, imperfect people with suspected cases, home quarantines, poor people who have been in trouble due to being unable to go out to work, disabled, mentally handicapped, unable to carry out essential production, and having their incomes affected as well as the people who have become weak due to the outbreak of Covid-19 and the people returning to poverty.

The Issue of Strengthening the Circulation of Agri-products and the Products of Poverty Alleviation Projects

The current prior issue is how to ensure the smooth flow of agri-products transportation of products for poverty alleviation projects. It is given priority effectively to the role of the green channel for vegetable and necessities, make full use of various electronic communication methods to achieve supply and demand. Based on those mentioned above, we must strictly crack-down the behaviour of the price jack-up of vegetables, aquatic products, and meat in order to ensure market supply.

Zhang et al. (2020b) pointed out the three “Must not” requirements issued by the Ministry of Agriculture and Rural Areas must be strictly implemented: firstly, must not to intercept transport vehicles delivering new-born animals, young birds, and breeding animals and poultry

to meet production requirements of restocking in farms; secondly, must not impede the feed transport vehicles to meet the feed needs of livestock and poultry breeding; finally, must not block vehicles for transporting livestock products to prevent the phenomenon of “difficult selling” and “discontinued supply.”

Meanwhile, vehicles that transport agri-products and products from poverty alleviation projects, etc. should be involved in the green channel for significant material supply. It is essential to coordinate relevant departments to handle traffic permits during the period of outbreak of Covid-19 to solve the problems of unavailability, interception, and high-costs during agri-product transportation. All of those can ensure that agri-products and poverty alleviation project ones are delivered out from the production front line and consumed at the consumption front line. Simultaneously, a suitable mechanism for the production and marketing of agricultural products in the epidemic prevention and control period should be established to solve the unsalable issues.

Facilitating Spring Farming and Resuming Work in Rural Areas

Amid prevention and control of the epidemic, spring ploughing, and resuming work should put into the most critical position. It should be focused on ensuring the supply and transportation of agricultural production materials such as seeds, fertilizers, pesticides, and agricultural machinery. The government should do it well of resuming the work of related agricultural enterprises during the epidemic prevention and control. All of these are to ensure the reliable quality, stable price, and smooth transportation of agricultural materials during spring ploughing and rehabilitation of farm work and to guarantee a solid foundation for another bumper harvest in 2020.

Villages are encouraged to make overall arrangements, and spring planting can be carried out in a dispersed and scattered manner. Meanwhile, in order to reduce the possibility of Covid-19 infection, farmers should be avoided as much as possible. Therefore, face-to-face agricultural technology training should be reduced, and offline training should be switched to on-

line training. Besides, in order to reduce the possibility of new coronavirus infection, farmers and workers should be avoided gathering. Consequently, it is necessary to reduce face-to-face agricultural technology training, changing from offline training to online training in order to provide experts and personnel support for spring ploughing, and returning to work in rural areas.

To Adjust and Optimize the Utilization of Poverty Alleviation Funds, and to Facilitate the Allocation and Disbursement of it.

All regions should, following the actual situation, study and formulate policy support for poverty alleviation in rural areas affected by the epidemic, as well as adjust and optimize the use of poverty alleviation funds within the framework of the existing fund management system. For example, in terms of industrial poverty alleviation, we will increase support for the construction, production, and sales of poverty alleviation industrial projects that have been affected by Covid-19. Regarding employment and poverty alleviation, special poverty alleviation funds shall be appropriately employed to organize and arrange employment opportunities for the poor people in the rural area.

All sections should continue to guarantee and strengthen the investment of special poverty alleviation funds. When allocating funds, we will give unique, rapid, and unobstructed support to relevant districts and enterprises that are most affected by Covid-19 in combination with actual conditions, effectively protect the need for poverty alleviation funds in these areas and minimize the impact of the epidemic on poverty alleviation in rural areas. The upstream authorities should review and supervise strictly and rigorously poverty alleviation funds to effectively ensure that the special funds for poverty alleviation allocated in various rural regions are timely distributed and implemented in poverty alleviation projects. Furthermore, the distribution and implementation of the fund should be given firstly to supporting poverty alleviation projects related to epidemic prevention and control.

CONCLUSION

The outbreak of the Covid-19 was unexpected and rampant, which has caused great harm to the Chinese economy, especially the tertiary in-

dustry. Additionally, it has brought enormous and extraordinary challenges to China's realization of building the moderately prosperous society in all aspects, achieving poverty alleviation, and eliminating absolute-poverty in the rural areas.

This research aimed to state the problem of rural poverty-alleviation exacerbated by the outbreak of the Covid-19. Furthermore, the advices of how to sort out the influence of the new coronavirus have been given in seven ways. As novel coronavirus is rampant all over the world, this research will give advices to other developing country in a bid to meet the problem of poverty-alleviation in rural area.

FUTURE WORK

The emphasis of this paper is to summarize the impact of rural poverty-alleviation in China on Covid-19 and to analyse and narrate the advice of it. There is only very little data to collect and analyse in this paper due to the limitation of transport amid the influence of the Covid-19. Shortly, further study and research about this topic will be conducted using specific and detailed data collection and analysis to make it more credible.

RECOMMENDATIONS

This research aims to reveal the impact of the novel coronavirus on poverty-alleviation in the rural areas of China and to provide advice on the socio-economic impact mitigation amid and after the Covid-19. Nowadays, many countries in the world have been affected by this new coronavirus. This study can give some advice from the perspective of poverty alleviation in the rural areas amid and after the Covid-19 employing the example of China.

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REFERENCES

- Bai Y, Liu K, Chen Z, Chen B, Shao Z 2020. Early transmission dynamics of novel coronavirus pneumonia epidemic in Shaanxi Province. *Chinese Journal of Nosocomiology*, 30(6): 834–838.
- Chen Y, Cao G 2020. Incidence trend of novel coronavirus (SARS-Co V-2) -infected pneumonia in China. *Shanghai Journal of Preventive Medicine*, 32(2): 1–6.
- Guangming Net 2020. The New Coronavirus Named 'Covid-19'. Guang Ming Wang. From <http://m.gmw.cn/2020-02/12/content_33546408.htm> (Retrieved on 12 February 2020).
- Haex R, Thoma Lürken T, Beurskens AJ, Zwakhalen SM 2020. How do clients and (In) formal caregivers experience the quality of home care? A qualitative approach. *Journal of Advanced Nursing*, 76(1): 264–274.
- Health Emergency Office of National Health Commission 2020. Update on the Epidemic Situation of New Coronavirus Pneumonia as of 24:00 on February 18, 2020. National Health Commission. From <<http://www.nhc.gov.cn/xcs/yqtb/202002/18546da875d74445bb537ab014e7a1c6.shtml>> (Retrieved on 17 February 2020).
- Hui DS, Azhar EI, Madani TA, Ntoumi F, Kock R, Dar O, Ippolito G, Mchugh,TD, Memish ZA, Drosten C 2020. The continuing 2019-nCoV epidemic threat of novel coronaviruses to global health — The latest 2019 novel coronavirus outbreak in Wuhan, China. *International Journal of Infectious Diseases*, 264–266.
- Merriam-Webster 2020. Definition of the COVID 19. From <<https://www.merriam-webster.com/dictionary/COVID-19>> (Retrieved on 20 March 2020).
- Mehta P, McAuley DF, Brown M, Sanchez E, Tattersall RS, Manson JJ 2020. COVID-19: Consider cytokine storm syndromes and immunosuppression. *The Lancet*, 395(10229): 1033–1034.
- Nicola M, Alsafi Z, Sohrabi C, Kerwan A, Al-Jabir A, Iosifidis C, Agha M, Agha R 2020. The socio-economic implications of the coronavirus and COVID-19 pandemic: A review. *International Journal of Surgery*. doi: 10.1016/j.ijssu.2020.04.018
- Qin X, Zhang T, Victor M 2020. The Advice of Provision and Circulation of Basic Agricultural Product Under 2019 Novel Coronavirus in China. *Journal of Agricultural Science* 12(5): 1–8. <https://doi.org/doi.org/10.5539>
- Read JM, Bridgen JRE, Cummings DAT, Ho A, Jewell CP 2020. Novel coronavirus 2019-nCoV: Early estimation of epidemiological parameters and epidemic predictions. *medRxiv*, 1–8.
- Wang Y, Zhang N, Lv H, Zhou Y 2020. Preliminary analysis of the incidence trend of novel coronavirus (2019 nCoV)-infected pneumonia in Shanghai. *Shanghai Journal of Preventive Medicine*, 32(2): 166–170.
- Xu F, Chen P, Wang J, Feng J, Zhou H, Li X, Zhong W, Hao P 2020. Evolution of the novel coronavirus from the ongoing Wuhan outbreak and modelling of its spike protein for risk of human transmission. *Science China Life Sciences*, 1–4.
- Xu X, Wen C, Zhang G, Sun H, Liu B, Wang X 2020. The geographical destination on distribution and effect of outflow population of Wuhan when the outbreak of the 2019-nCoV pneumonia. *Journal of University of Electronic Science and Technology of China*, 1–6.
- Yang X, Hou J 2020. Current status of application of convalescent plasma in acute viral infectious diseases and its prospect in the therapy of COVID-19. *Chinese Journal of Biologicals*, 1–5.
- Yue X, Shao X, Li RYM, Crabbe MJC, Mi L, Hu S, Baker JS, Liang G 2020. Risk management analysis for novel coronavirus in Wuhan, China. *Journal of Risk and Financial Management*, (22): 1–6.
- Zhang H 2020. Ethical reflections for conducting 2019-nCoV related research during the public health emergency. *Chinese Medical Ethics*. From <<http://kns.cnki.net/kcms/detail/61.1203.VR.20200212.1523.002.html>> (Retrieved on 13 February 2020).
- Zhang H, Hu L, Hu Z, Wang Y 2020a. To Ensure Supply and Income Increasing via Response Proper and Implementing Policy Precisely. People. From <<http://country.people.com.cn/n1/2020/0217/c419842-31590451.html>> (Retrieved on 17 February 2020).
- Zhang H, Hu L, Hu Z, Wang Y 2020b. Using Every Possible Means To Ensure Supply And Increase Income Using Proper Response, Precise Policy. People. From <<http://country.people.com.cn/n1/2020/0217/c419842-31590451-3.html>> (Retrieved on 17 February 2020).

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