The Effect of Inclusion in Digital Finance on Income Gaps between Urban and Rural Regions

Shuangyang Hu
Email: shhu2848@uni.sydney.edu.au

Master of Commerce, University of Sydney, NSW 2006, Australia

Abstract. The fixed effect model is used in this paper's empirical investigation to construct a panel regression model utilizing the statistical data over the period from 31 provinces, cities, as well as autonomous regions in China from 2013 to 2019, which can show the influence of digital financial inclusion on the income gap between urban and rural regions. The study concludes that digital participatory funding may significantly enhance residents' disposable income and decrease urban-rural income disparities based on theoretical and STATA empirical analysis. It is found that the variables Urbanization rate and Agriculture related loans have high significance when using the spatial effect model. Because of the imbalance of regional development levels, the significance of other variables is different, and the results have passed the robustness test. The findings of the study provide new ideas for relevant authorities on how to allocate macro factors, improve income distribution patterns, and achieve common prosperity in the context of the digital economy.

Keywords: Econometrics: Digital financial inclusion; Panel data analysis; Fixed effect model; Spatial effect model; Disparities in income between urban and rural regions; Economic Statistics

1. Introduction

1.1 Background

The socio-economic level in China has dramatically increased because of the reform and openness, and the country's economy has advanced significantly. The level of living has significantly increased simultaneously, but the income disparity between urban and rural populations is likewise expanding. The current economic advancement of China has the structural problems of lower total and slower growth. Such a gap will not only hinder economic development, but will also have an impact on social governance [6].

The financial sector stimulated market initiatives and contributed significantly to China's economic growth. The financial sector has gradually shifted in the direction of digitalization and intelligence with the advent of the information age and the impact of a number of information technologies, including big data, blockchain, and meta-universe, and digital financial inclusion has gradually grown into an important tool for resolving issues with economic growth and achieving shared prosperity.

1.2 The significance of the topic

The bulk of researchers has previously given the relationship between national factors and the expansion of financial digital inclusion a considerable lot of attention, utilizing multiple effect

BDEIM 2022, December 02-03, Zhengzhou, People's Republic of China

DOI 10.4108/eai.2-12-2022.2328718

models for research. While more thoroughly examining the connection between the income difference between urban and rural regions and digital financial inclusion, this study may provide theoretical foundations for the implementation of policy.

1.3 Research aims and objectives

The goal is to investigate how various stages of growth in digital financial inclusion might lessen the income gap between urban and rural populations.

To achieve this goal, this paper selects the whole country and sub-regions as the object of study, dividing China to 3 main economic regions: those in the east [i], the center [ii], and the west [iii]. The eastern section of them has 11 provinces; the central region includes 8 provinces and the western region has 12 provinces. An empirical model is created by combining the data from creating an inclusive digital finance index of regions of the country, the center, the east, and the west.

2. Literature review

Academics have been debating the connection between conventional financial concerns and income inequality for rural and urban regions. Guanchun Liu used a panel regression model and the analysis of mediating effects to conclude that the credit structure can be improved via financial development, promote economic growth and urbanization process, which shows that if the banking sector grows, the income gap between urban and rural China may shrink [9]. Jing Qi used benchmark regression, heterogeneity analysis, threshold regression, and mediating effect model to investigate the mechanism affecting the income gap between urban and rural regions as a result of digital financial inclusion [5]. By using this information, she examined the traditional finance level by including an interaction term to assess their moderating effects the discrepancy in income between urban and rural regions. The primary conclusions are that the convergence effect of inclusion of digital finance is imbalanced, that it significantly narrows the disparity in wealth between urban and rural regions, and that it somewhat complements conventional finance. The income gap between urban and rural regions has been shown to be more successfully closed through digital financial inclusion.

There have been an increasing number of research on urban-rural economic disparities & digital financial inclusion in recent years, as the information age has progressed. Biqiong Zhang and Wanting Wu examined how income distribution and its means of transmission are affected by the advancement of digital financial inclusion from the standpoint of the inequality between urban and rural [2]. They concluded to close the disparities in income between urban and rural regions, digital financial inclusion has a large beneficial influence on residents' income, with a bigger impact on rural people' income. Yanming Nie and Yuan Li selected four variables, including financial availability of rural residents, farmers' entrepreneurial funds, education funds, and investment opportunities, and concluded that the integration of digital technology and inclusive finance known as "digital financial inclusion" removes traditional finance's exclusionary practices, lowers the barrier to entry and the cost of financial supply, increases the income of rural residents, and includes vulnerable populations, including the elderly and the underprivileged [1].

Models and analytical techniques used to analyze how digital financial inclusion impacts the income gap between urban and rural regions. The three dimensions of effect theory, financial exclusion theory, and financial function theory are used by Xueting Han to illustrate the theoretical underpinnings of digital financial inclusion to reduce the disparities in income between urban and rural regions [4]. She also analyzes the convergence mechanism of digital financial inclusion on the gap between urban and rural income in accordance with China's fundamental national conditions as well as theoretical logic. Using a combination of dynamic and static panel, GMM estimation methods are introduced to examine the relationship between the urban-rural income gap and financially inclusive internet platforms. To experimentally examine the direct and mediated effects of the advancement of inclusive digital finance on the reduction of rural poverty by location, dimension, and various levels of economic growth, Zhilan Gu employed a panel regression model and a threshold regression model [3].

It is evident that with the advancement of the background of the times, the academic discussion on finance and the disparities in income between urban and rural regions has gradually shifted from traditional finance to digital financial inclusion. According to the existing references, the academic community has already conducted a comprehensive and rigorous analysis. According to academics, inclusive digital finance is more effective than traditional finance in closing the income gap between rural and urban. However, the impact of digital financial inclusion on income disparity involving urban and rural regions has been mostly focused on macro-level and provincial panel data, and the research on micro-level and sub-regional panel data still needs to be further discussed.

3. Empirical Design

The link between Chinese urban-rural income disparities and digital financial inclusion is experimentally tested in this chapter, selecting inter-provincial panel data from 2013-2019 and adopting a fixed-effects approach for the relevant empirical research.

3.1 Variable measurement and description

3.1.1 Explained variable

Given the structural mobility of urban and rural populations as well as the features of the high and low ends of subject dispersion, the disparities in income between urban and rural regions indicator (Teil), this paper draws on the measurement of the Teil index [4] in the article by Xueting Han and uses the calculated Teil index as a proxy variable to compute the disparity in inequality of income between urban and rural residents. Its calculation formula is as follows:

$$Teil_{i,t} = \sum_{j=1}^{2} \left[\frac{I_{ij,t}}{I_{i,t}}\right] * ln[\frac{\frac{I_{ij,t}}{I_{i,t}}}{\frac{P_{ij,t}}{P_{i,t}}}] \quad (1)$$

Among them, j=1 denotes an urban area, j=2 a rural one, t means year, $P_{ij,t}$ represents the urban or rural population, $P_{i,t}$ represents the entire regional population in year t. $I_{ij,t}$ represents the urban versus rural inhabitants' disposable income, which is derived by dividing the population of inhabitants in urban or rural regions by the average resident's disposable income;

$I_{i,t}$ represents the total disposable income of a region, determined by dividing the region's per capita disposable income by the entire population.

3.1.2 Core explanatory variables

This study utilizes the Index of Digital Financial Inclusion jointly created by Peking University and Ant Financial Research Institute to measure the development level of inclusive digital finance (dig). As the magnitude of this indicator differs greatly from other data, it is treated with the value /100 in this paper for the sake of unifying the magnitude.

3.1.3 Control variables

Through reading and researching relevant literature at home and abroad, and then combining the analysis on the theoretical basis of the previous article, other variables that affect the urban-rural income disparity are gathered as control variables in this study. After deduction and reflection, the urbanization rate (ur), the proprotion of tertiary industry (ts), economic development (GDP), agriculture-related expenditures (agr), education level (edu) and agriculture-related loans (rp) are identified as control variables for this paper.

a) Urbanization rate.

The disparities in income between urban and rural regions problem has worsened as China's economy has advanced. The pace of urbanization is a key indicator of the level of social organization and administration in a nation or area and its economic growth. In the opinion of many academics, the urban-rural income divide is greatly influenced by the rate of urbanization. According to Xueting Han [4], urbanization can boost the labor force's mobility in rural regions and raise household income levels through expanding work options. For the purposes of this study, the ratio of the urban population in the region to the total population of the region is used as a measure for calculating urbanization rates.

b) The proportion of Tertiary industry.

The improvement and optimization of the industrial infrastructure foster economic expansion and contribute to an overall rise in resident income levels. The tertiary industry is characterized by the unity of production and consumption, all-sided, small scale and decentralized, and the ease of absorbing labor, which is crucial for addressing job issues and expanding markets. The advancement of the tertiary industry can absorb rural surplus labor and narrow down the income gap. The percentage of the tertiary sector's contributed value to GDP is used in this study to gauge the industrial structure.

c) Economic development.

At present, the relationship between economic progress and the impact of the disparities in income between urban and rural regions has been widely studied in academic circles. Scholars still debate whether there is a "positive U-shaped" or "inverted U-shaped" relationship between the two, so further verification is needed. This paper uses regional GDP per capita as an indicator of economic development [7].

d) Agriculture-related expenditures.

Fiscal expenditure represents government intervention, and agriculture-related expenditure refers to the level of fiscal input in the agricultural sector. Theoretically, the higher the proportion of agriculture-related expenditures, the higher the income of rural residents should increase accordingly. This paper takes the ratio of spending on agricultural, forestry, and water affairs relative to fiscal expenditure.

e) Education level.

According to the analysis of existing literature, the advancement of education could boost the levels of human capital available, and the knowledge base of users determines how much of an impact digital financial inclusion has on reducing the disparity between urban and rural incomes. Years of schooling per capita are used in this study to gauge the degree of educational advancement, which is calculated as follows: edu= (from primary 6 to junior high 9 to senior high 12 to college and above 16)/number of people aged 6 and above [3].

f) Agriculture-related loans.

Agriculture-related loans represent the advancement of rural financial level. Research shows that financial advancement has an impact on the economic disparity between rural and urban regions. Mainly through direct and indirect mechanisms. The financial sector holds the coordination and distribution of a large amount of funds in society, which indirectly affecting the income growth of different groups of people. This paper adopts the agriculture-related loans from the China Statistical Yearbook as an indicator of rural economic development [8].

3.1.4 Data sources and descriptive statistics

Macro data used in this study were derived from the China Statistical Yearbook from 2013 to 2019 and the National Bureau of Statistics of China's official website. In order to track the development of digital financial inclusion, data from the Peking University Digital Financial Inclusion Index Report was obtained from the official website of the Digital Financial Inclusion Center. Using STATA 17.0, the following tests and this paper's estimation findings were generated.

Eight indicators altogether were used for the investigation: disparities in income between urban and rural regions (Teil), degree of digital financial inclusion development (dig), urbanization rate (ur), the proportion of tertiary industry (ts), economic development indicators (GDP), agriculture-related expenditure (agr), education level (edu) and agriculture-related loans (rp).

The selection of all variables, their symbols, and calculation strategies are depicted in Figure 1.

Type of variables	Name of variables	Meaning	Calculation
Explained Variable	Teil	Disparities in income between urban and rural regions	Teil index
Principal Explanatory Factors	dig	Development level of digital financial inclusion	Peking University Digital financial inclusion Index/100
Control Variable	edu	Education level	(Primary 6 + junior high 9 + senior high 12 + college and higher 16)/number of people in the primary and secondary grades)
	agr	Agriculture-related expenditures	The percentage of budgetary expenditures spent on agricultural, forestry, and water issues
	GDP	Economic Development Indicators	Regional GDP per capita
	ur	Urbanization rate	The percentage of urban dwellers in the region that makes up the whole population
	ts	The proportion of tertiary industry	The contribution of tertiary industries added value to GDP

Figure 1. Meaning of variables as well as their calculation methods (Photo credit: Original)

After processing, all variable data were at the same scale level, and the table displays the descriptive statistics for the data.

Variable	Sample Size	Mean	Standard Deviation	Minimum	Maximum	Skewness	Kurtosis
Teil	217	0.0936	0.0412	0.0198	0.22	3.2151	0.5147
dig	217	3.324	0.635	2.179	4.622	1.8635	-0.1838
edu	217	0.436	0.0246	0.378	0.685	50.6193	4.8343
agr	217	0.117	0.0337	0.0411	0.203	2.8601	-0.1412
GDP	217	1.616	0.411	0.825	2.784	2.9833	0.6831
ur	217	0.577	0.126	0.237	0.896	3.7846	0.5461
ts	217	0.483	0.0907	0.32	0.835	6.3978	1.4951
rp	217	3.83	1.143	0.34	5.874	3.5655	-0.7866

Figure 2. Descriptive Statistics Variables (Photo credit: Original)

As can be seen from the graph, the variation in the maximum and lowest values of inclusive digital finance, economic development indicators and agriculture-related loans is large, indicating a more pronounced regional disparity. The frequency distribution's peak is skewed to the left, and the long tail extends to the right with a rightward bias, according to the fact that all variables' skewness coefficients are larger than 0. In terms of kurtosis, most variables have kurtosis values larger than 0, which indicates that the distribution's peak is steeper than the peak of the normal distribution. Among them, the kurtosis of digital financial inclusion, agriculture-related expenditures, and agriculture-related loans is less than 0, indicating that there are more extreme data at both ends of the distribution, which has a flat broad peak. This indicates that there are still issues like outdated industrial technology, delayed growth, and Inequality in the growth of urban and rural regions, as well as a fairly pronounced disparity in the quantity of wealth between urban and rural regions of China. Moreover, the state of inclusive digital finance development varies significantly by location., which may be due to differences in regional economic development leading to differences in penetration rates, or due to the influence of people with low education or traditional attitudes, making some people still unable to truly accept and use digital financial products.

3.2 Model construction

This study uses panel data to study the changes of the explained variables over time in each province, city and autonomous region. Therefore, after the Hausman test, the final choice was to use the individual fixed effects approach. Controlling for the 31 provinces, cities and autonomous regions of the country, without controlling for time, eliminates individual differences that vary by region but not by time.

When individual effects are used, the endogeneity of the model is significantly reduced because the effects of omitted variables that are both observable and unobservable but do not change over time are absorbed all at once. The drawback is that omitted factors that change over time but not with people are not removed.

Through reading and summarizing the relevant literature, this paper establishes a linear regression model for the balanced panel, and constructs the regression model as follows:

$$Teil_{it} = \alpha_0 + \beta_1 dig_{it} + \beta_2 edu_{it} + \beta_3 agr_{it} + \beta_3 GDP_{it} + \beta_4 ur_{it} + \beta_5 ts_{it} + \beta_6 rp_{it} + \varepsilon_{it} \quad (2)$$

According to the model, the subscript i represents the region, and t denotes the time; β_1、β_2、β_3.. $\beta_6$are the corresponding explanatory variable's coefficients, and ε_{it} is the random disturbance term.

4. Empirical Results and Analysis

This chapter will cover the fixed effects with geography acting as a fixed variable to examine the effect of digital financial inclusion on the income gap between rural and urban regions.

	National	East	Central	West
dig	-0.0037***	-0.0007	-0.0066**	-0.0065***
	（0.001）	（0.0012）	（0.002）	（0.002）
edu	-0.0286	-0.0557	0.0151	-0.0902*
	（0.021）	（0.0358）	（0.0178）	（0.0455）
agr	-0.0182	0.0258	0.1309	0.1089
	（0.049）	(0.0888)	(0.1493)	(0.0654)
GDP	-0.0037	-0.0131	-0.0055	-0.0208
	（0.0098）	(0.0105)	(0.0132)	(0.0233)
ur	-0.3899***	-0.3169***	-0.1988	-0.2968*
	（0.0607）	(0.058)	(0.1367)	(0.154)
ts	-0.0253	-0.0238	-0.4826	-0.0814**
	（0.0271）	(0.0298)	(0.0544)	(0.0369)
rp	-0.0023***	-0.0022**	-0.002	-0.0029**
	(0.0005)	(0.0007)	(0.0014)	(0.001)
constant	0.3728***	0.3513***	0.2305***	0.3982***
	(0.0228)	(0.0509)	(0.0558)	(0.0362)
Regional fixed effects	Control	Control	Control	Control
Time fixed effects	Not Control	Not Control	Not Control	Not Control
observations	217	77	56	84
N	31	11	8	12
R-squared	0.7149	0.8213	0.3259	0.5983

Figure 3. Fixed Effect Model by Region (Photo credit: Original)

*Note: *, **, *** sub-tables indicate the significant levels of 10%, 5%, and 1%, with the corresponding standard deviation of each variable in brackets.*

As can be seen from the above table, for the whole country, the level of growth of digital financial inclusion, urbanization rate, the proportion of tertiary industry, economic development indicators, agriculture-related expenditures, education level, and agriculture-related loans are all negatively correlated, with the proportion of inclusive digital finance development, urbanization rate and agriculture-related loans negatively affecting the economy's degree of development at 1%, which is a substantial level. The correlation coefficient is 0.7149, which is close to 1, indicating a good fit. The regression a measure of inclusive digital finance is -0.0037, which translates to a 0.0037-unit reduction in the disparities in income between urban and rural regions for every unit rise in the digital financial inclusion index controlling for other variables. The primary explanation for this is because as a result of the incorporation of digital technology, conventional financial development has been better expanded, boosting the financial demands of rural populations.

For the eastern region, agriculture-related expenditures are positively correlated, and the rest of the variables are negatively correlated. Among them, the urbanization rate significantly negatively impacts the economic development level of 1%. In comparison, agriculture-related loans have a significant negative impact on the economic growth level of 5%.

The central region's urbanization rate and level of digital financial inclusion development, the proportion of the tertiary industry, economic development indicators, and agriculture-related loans are all negatively correlated, while agriculture-related expenditures and education level

are positively correlated. The degree of digital financial inclusion development negatively affects the level at a substantial level of 5% economic growth.

In the western region, the degree of digital financial inclusion development, urbanization rate, education level, the proportion of tertiary industry, economic development indicators, and agriculture-related loans are all negatively correlated, while agriculture-related expenditures are positively correlated. At a significant level of 5%, the proportion of tertiary industry and agriculture-related loans negatively affects economic development, and the level of education and urbanization rate negatively affects 10%. These negative effects are all statistically significant. The random disturbance terms are positively correlated in all four ranges and positively affect the economy's degree of development at 1%, which is a substantial level.

5. Research Conclusions

5.1 Summary of findings

The reduction regarding the disparity between urban and rural income as well as the alleviation of rural poverty are two significant goals of the advancement of digital financial inclusion. In contrast to the macro-level analysis in previous literature, panel data from 31 provinces are chosen for this article, cities and autonomous regions from 2013 to 2019 for empirical testing, and constructs a fixed-effects model of panel regression.

Firstly, to verify the general convergence effect of inclusive finance on urban and rural inhabitants' income in the digital age, this paper is conducted at the national level. Secondly, the analysis is divided into three major economic regions, investigating whether there are variations in how the various regions in China affect the country's eastern, central, and western regions. After research, the following inferences are possible:

From the national sample, the urbanization rate (ur) shows a highly significant level, indicating that urbanization can significantly narrow China's disparities in income between urban and rural regions. Agriculture-related loans also show a high degree of significance, indicating that providing effective financial loan services to rural regions is conducive to increasing income and reducing the gap. However, the level of education, agriculture-related expenditure, economic development indicators and the proportion of tertiary industry are not highly significant, contrary to theoretical expectations, indicating that although China has invested in these regions. The income gap has narrowed, but the effect has been minimal due to the sluggish rate of development and the substantial regional inequalities.

The regression findings for the central area passed the 5% significance level test whereas the regression results for the western region passed the 1% significance level test when looking at the sub-regional sample. Because of the lower disparities in income between urban and rural regions in the east alone, the eastern area failed the test, leading some to speculate that it may not be substantial. It is clear that the availability of financial services in economically undeveloped regions and among low-income groups may be improved via the use of digital financial inclusion. To lessen economic inequality in China and work toward achieving shared prosperity, it is therefore important to encourage the growth of digital financial inclusion.

Based on the sub-regional sample's control factors, the urbanization rate (ur) in the eastern and western regions can greatly narrow the disparities in income between urban and rural regions while having the opposite impact in the center area. This is thought to be related to the central region's dense population and the sluggish rate of urbanization. Similar to how they dramatically narrow the urban-rural income difference, agricultural-related loans in the east and west have the reverse impact in the center. The larger proportion of non-performing loans in the central area is thought to be the cause. Since there are few educational resources in the western region, an increase in educational level can optimize the human structure in rural regions and accomplish the goal of raising the income of low-income groups. Education level (edu) significantly reduces the rural-urban income gap in the western region. The western area also has a sizable number of tertiary industries (ts). Since the western region is less developed and yet employs a greater number of people in primary and secondary sectors, it is hypothesized that this is the case. As a result, fostering the growth of a varied industrial structure is crucial for closing the income gap for non-urban residents.

5.2 The limitations of the study

This study still has a number of analytical flaws: Regarding (1) The Index of Digital Financial Inclusion which is one-sided. The score is based on data given by Ant Financial Services, a single source of data that is currently unable to provide a full picture of the state of advancement of digital financial inclusion. (2) In light of the COVID-19 epidemic's effects on the economy, data from the last two years were not used, and the construction of the Digital financial inclusion Index was established in 2011, so in terms of picking the research period, it is challenging to quantify its long-term impact. (3) The selection of control variables refers to previous scholarly papers and studies, and there are certain degree of error and one-sidedness in data selection and calculation processing. (4) The empirical analysis using fixed effects in this paper is relatively simple and needs further improvement.

5.3 Policy suggestions

This research offers empirical support for encouraging economic growth and urbanization through digital financial inclusion. The following are the paper's policy suggestions:

First, from the perspective of national strategy. The government should formulate and improve the corresponding laws and regulations and standardize the digital inclusive financial market. This will avoid exploiting legal loopholes and also effectively ensure the order of the market, as well as protect the rights and interests of consumers themselves from being duped. In terms of internet security and digital technology development, the state should also strengthen talent cultivation and introduction.

Second, the advancement of economic zones should also adhere to the principle of synergy and consistency. The state should formulate corresponding policies according to the actual situation of each region and make timely adjustments to ensure infrastructure implementation. Encourage well-developed regions to drive less-developed regions, allocate resources rationally, and strengthen regional connections.

Third, from the perspective of the local government. It should first ensure the construction of regional infrastructure, aim for complete network coverage and fulfill hardware requirements for the progress of digital financial inclusion. Adjusting the credit system based on regional finance and residents' transaction methods. At the same time, product innovation of financial

institutions should be encouraged as much as possible to diversify products. Increase the emphasis on the rural sector, make timely adjustments to expenditures connected to agriculture, inspire people in rural regions to start their enterprises, and advance urban-rural integration.

References

[1] Yanming Nie, Yuan Li. (2021) Research on Digital Inclusive Finance to Narrow the Income Gap between Urban and Rural Areas[J]. Information Systems Engineering. (11): pp.6-9.

[2] Biqiong Zhang, Wanting Wu. (2021) Digital Inclusive Finance, Entrepreneurship and Income Distribution: An Empirical Research from the Perspective of Urban-rural Differences in China[J]. Chinese review of financial studies.13(02): pp.31-44+124.

[3] Zhilan Gu. (2021) Research on the Alleviation Effect of Digital Financial Inclusion Development on Rural Poverty[D]. Nanjing University of Posts and Telecommunications.

[4] Xueting Han. (2021) Research on the Impact of China's Digital Inclusive Finance Development on Urban-Rural Income Gap[D]. Jilin University.

[5] Jing Qi. (2021) Influence of Digital Inclusive Finance Development on Urban-rural Income Gap—Empirical Research Based on Panel Data of Prefecture-level Cities in China[D]. Shandong University.

[6] Mingjie Zhou. (2012) Analysis on the income gap between urban and rural areas in my country since the reform and opening up [J]. Reform and Opening, (16): pp. 1-2.

[7] Xing Xu. (2018) Zhejiang Sci-Tech University. The impact of rural financial development on the urban-rural income gap [D]. Zhejiang Sci-Tech University.

[8] Teng Zhong, Yue Zhang, Hui Lin. (2019) The impact of the scale and efficiency of financial development on the urban-rural income gap—on the role of financial services induction[J]. Financial Science, (02): pp. 91-108.

[9] Guanchun Liu. (2017) The Effects of Financial Structure on Urban-rural Income Gap Viewed through Economic Growth and Urbanization[J]. Finance and Trade Economics, 38(6): pp.98-114.

[i] Eastern region including Beijing, Jiangsu, Hebei, Liaoning, Shanghai, Zhejiang, Fujian, Tianjin, Guangdong, Shandong and Hainan.

[ii] Central region including Heilongjiang, Shanxi, Jilin, Anhui, Henan, Hubei, Jiangxi and Hunan.

[iii] Western region including Shaanxi, Inner Mongolia, Guangxi, Sichuan, Guizhou, Yunnan, Tibet, Gansu, Qinghai, Ningxia, Chongqing and Xinjiang.