

## POLICY-ORIENTED RURAL DEVELOPMENT IN CHINA AND ITS POTENTIAL INFLUENCE ON RURAL DEVELOPMENT IN AFRICA

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**ABSTRACT** In most developing countries, large populations live in rural areas and rely heavily on the agricultural economy. Rural development has attracted much attention from the United Nations (UN), governments in developing countries and rural development researchers. Both China and the countries of the African continent have vast areas of rural land, and numerous farmers. In this paper, the authors review rural development in China since 1978, and summarise stages of development and actual experiences. In the past 40 years, poverty reduction has been a key feature of regional planning and rural development in China, and rural development policies have played a crucial role in the success of rural poverty reduction. In 1978, some 250 million Chinese citizens, approximately 30% of the national population, were classified as living in poverty. With rural development and poverty reduction, the number of Chinese citizens in poverty decreased continuously to 125 million in 1986 and 80 million in 1993. In 2013, the population living in poverty in rural areas was about 70 million. The poverty reduction strategy in China has become much more precise and the central government hopes to solve the rural poverty problem before 2020. The three core components of China's rural development in recent decades have been policy, investment and technology. With government policies as a firm foundation, investment and technology have significantly accelerated the rural development process in China. China's rural development could potentially influence rural development in African countries, although there is a need to carefully consider the specific social systems of the different rural regions in the African continent. China's influence on African agriculture has been limited, but there is the potential for this to increase in the future.

**Key Words:** Rural development; Household responsibility system; Poverty reduction; Policy oriented development; Inspiration; Africa and China.

### INTRODUCTION

China is the largest developing country in the world, with more than 600 million farmers across the nation. In the past few decades, rural development has not only been one of the main goals of the national government but has also been a focus of both international and domestic researchers (Perkins & Yusuf, 1984; Fan, 1991; Shen, 1996; Long et al., 2010; Chen & Scott, 2014; Cheremukhin et al., 2015). Rural development in the United States has been supported by the United States Department of Agriculture (USDA) Office of

Rural Development (RD), which operates over fifty financial assistance programs for a variety of rural applications (USDA, 2017). Over the course of the Obama Administration, USDA made targeted federal investments in rural areas to create jobs, generate economic opportunities and strengthen rural communities. The USDARD has invested in rural America's remarkable comeback, with key economic indicators continuing to show that rural America is rebounding from past economic decline. Rural unemployment has continued to fall, dropping below 6% in 2015 for the first time since 2007, and rural poverty rates have also fallen in the past decade. Median household incomes in rural areas increased by 3.4% in 2015, and rural populations have stabilised and are beginning to grow (USDA, 2017). In the European Union (EU), the EU's rural development policy has enabled the rural areas of the EU to meet the many economic, environmental and social challenges of the 21st century (European Commission, 2013). In India, a roadmap of rural development has been established and is strongly supported by the national government (Rajvanshi, 2016). Rural development has become an important domestic policy in the US, India and the EU.

In the early years of the 'new China' (established in 1949), private land ownership was replaced by public or collective ownership. From the late 1950s to the late 1970s, rural development proceeded slowly and was controlled by socialist policies. There were no economic or other subsidies for farmers, and investment in rural development was limited. In Africa, most countries gained independence before the 1970s, but their national economies still relied on the international market and international aid. Rural poverty and rural development are still serious problems for most African countries. In the period of 2010–2012, the prevalence of undernourishment in the total African population was about 20.7%, and exceeded 70.0% in Burundi and Comoros (African Development Bank et al., 2015). The high youth unemployment rate in Africa is also a problem that needs to be solved (African Development Bank et al., 2015). In 1978, the Communist Party of China began to implement economic reforms. Rural development has subsequently entered a new era and has experienced rapid growth in the past few decades. Several researchers have contrasted the rapid rural development in China with the slow pace of rural development in Africa. There are two lessons for Africa from China's success in rural poverty alleviation. The first is the initial importance of productivity growth in smallholder agriculture, which requires both market-based incentives and public support. The second is the role played by strong leadership and a capable public administration at all levels of government (Ravallion, 2009). This study focused on China's policy-oriented rural development, and has considered actual experiences from China, and the significance of African rural development in the future.

## CHANGES IN RURAL DEVELOPMENT POLICIES IN CHINA

For a long time in China the pace of rural development was slow, even after the People's Republic of China was established in 1949. In the early 1950s China reformed the system of rural land ownership. In rural regions, land that belonged to the local community was placed under collective ownership. Rural development was not a high priority for the central government during the period of 1949–1979. There were few subsidies or investments in rural development in the 30 years prior to the 1978 reform period. Agriculture was one of the main contributors to the national economy, providing cheap food for urban residents and materials for industrial enterprises. However, the policy of collective land ownership did not generate reasonable benefits or enough food for the farmers. In rural regions, many farm families starved because of food shortages, especially during the Great Leap Forward (GLF) (1958–1962). The lack of farming incentives and policy-oriented agricultural activity resulted in the total factor productivity (TFP) falling by 41% from the peak in 1958 to a low in 1962. In the years prior to 1979, TFP remained low (Cheremukhin et al., 2015). In the period prior to the 1978 reform, the *Hukou* system, a system used to manage the population in urban and rural regions, restricted the mobility of rural labour (Song, 2014). Scarce investment, a strict market, non-mobile labour, and policy-oriented incentives, as well as the collective ownership of land, restricted agricultural and rural development in China prior to the 1978 reform.

After the 1978 reform, the household responsibility system was introduced as a new institutional innovation in China. This allowed farmers to determine farming practices themselves, and led to a desire to produce larger volumes of agricultural products, solving the food shortage and increasing the activity of farm labourers. The reformed agricultural market also enabled farmers to sell some of their crops. As industrialization and urbanization advanced in China, business enterprises and urban developers needed more labour. Farmers were encouraged to move to the cities and earn money for a living. Under the open agricultural policy and with market innovation, land ownership accelerated rural development.

Policy change was the main factor affecting rural development in China. For example, during the GLF (1958–1962), TFP in agriculture fell by 41% from its peak in 1958 to a low point in 1962. TFP in manufacturing fell in 1958 by 23% and again in 1961 by 26%. One important factor that affected TFP in both the agricultural and non-agricultural sectors was the worsening of policy incentives (Naughton, 2007). Material incentives, monetary rewards, and bonuses were prohibited, free markets in the countryside were curtailed, and restrictions were introduced on productive private farming plots. The fall in manufacturing TFP was attributed to several factors. First, the collapse of agricultural production led to a severe shortage of agricultural materials for the textile and food-processing industries. Second, many small-scale plants, such as backyard steel furnaces, were exceptionally inefficient. The productivity growth during the post-GLF

period before 1978 was 2.4% per year in agriculture. After the 1978 reform, agricultural productivity increased rapidly. For example, annual TFP growth was 4.7% in 1978–1985, and in the period of 1985–2012 TFP growth was 3.9% per year (Cheremukhin et al., 2015).

## RURAL DEVELOPMENT IN CHINA AFTER THE RURAL ECONOMIC REFORMS

### I. Growth in Agricultural Production Solved the Food Shortage

After the 1978 reform, production of the main agricultural products increased rapidly and satisfied the needs of the population and the agricultural-based industrial sectors. Total grain production increased from 300 million tons in 1978 to 600 million tons in 2015, which completely solved the food shortage. Production of grains, vegetables, fruits, various types of meat and fishery products fulfilled the domestic demand and some products were exported to overseas markets.

### II. The Mode of Agricultural Development Changed Rapidly

After the 1978 reform (especially after the mid-1980s), the mode of agricultural development was transformed from extensive to intensive cultivation. Technology contributed more than 50% of the overall advances in agricultural development. Agricultural mechanisation has improved significantly in recent decades. In 1978 the level of agricultural mechanisation was 20.2%, while in 2008 the level increased to 45.0% and in 2013 it reached 60.0% (National Bureau of Statistics of the People's Republic of China, 2015). Agricultural mechanisation reduced the need for labour force and the surplus labour in rural regions became available for industrial activity.

### III. The Economic Structure in Rural Regions Changed Rapidly

Before the 1978 reforms, the economy was dominated by agricultural production. In recent years in rural regions, agricultural industry and agricultural services have developed in conjunction with each other. After the 1978 reforms, township and village enterprises boomed because of the open policy, improved investment environment and technological inputs. In 2008, the economic growth of township and village enterprises accounted for 28% of the national gross domestic product (GDP). In 2013, China's private economy accounted for more than 60% of the GDP (National Bureau of Statistics of the People's Republic of China, 2015). In more than 19 provinces the private economy accounted for more than half of their GDP. In Guangdong Province the private economy accounted for 80% of the GDP. The agricultural industry developed continuously, and the number of large-scale farming enterprises increased substantially.

#### IV. Farmer's Incomes Increased Continuously

After the 1978 reform, the Chinese people progressed from being barely fed and clad to a more comfortable life. Farmer's lives changed as they became wealthier. From 1978 to 2008, the net income increased from 133 RMB (or 20 USD) to 4,761 RMB (or 680 USD) per capita. In 2013 the average farmer's income was 8,896 RMB (or 1,271 USD) per capita. The population in poverty decreased from 250 million in 1978 to 70 million in 2013, and the UN millennium development goal was achieved in China (Agricultural Yearbook Editing Committee, 1979; 2009; 2014). The increase in work opportunities in urban areas or factories had an impact on population control in rural regions, with less children being born due to the opportunities to work outside the region. Family incomes increased as industrialisation and urbanisation increased nationally.

#### V. Great Changes in the Rural Economic System

In China the rural economic system has changed substantially since the 1978 reform. Self-sufficient farming has been transformed into an agricultural market economy. The current rural economy is based on both a household responsibility system and the mixed management system, which suggests that the collective ownership economy and family unit economy coexist. No strict agricultural product market and price system have been established in recent decades. In 2005, the central government issued legislation rescinding the agricultural tax and other taxes on special agricultural products. A system of agricultural subsidies has also been gradually established over the past 20 years. With support from central government, rural development policies such as the agricultural macroeconomic regulation and control system, the administrative system, the legal system and the protection policy system have been established.

#### VI. Increased Public Finance to Support Rural Development

China has a typical urban and rural dual social structure and economy. After the 1978 reform, the central government introduced policies to move away from the dual social and economic structure to an integration between urban and rural areas. Public finances and services were used to support rural development, and infrastructure such as a clean water supply, electricity supply, road improvements and gas supply in rural regions improved rapidly. The overall quality of rural life has improved in recent decades. Prior to the 1978 reform, agriculture and rural regions contributed more to the national economy than industry and urban development. After the 1978 reform, rural development policies such as 'enlivening the rural economy' gave the right of self-management to farmers, enabling them to implement a household responsibility system and engage in industrial and agro-product processing. This has completely opened the rural market and, together with several poverty reduction campaigns, has resulted in significant rural

development. Before the 1978 reform, there were few cement or asphalt roads in rural regions. With financial support from the central government, the total length of cement and asphalt roads in rural regions has reached 3.58 million km. In addition, rural education and hospital conditions also improved rapidly after the 1978 reform, especially in the past decade. These improvements indicate that policy-oriented rural development has been successful.

## SOME PROBLEMS IN CHINA'S RURAL DEVELOPMENT

### I. The Effects of Urbanisation on Rural Development

Urbanisation has been the main trend in China's development. The number of cities in the country increased from 132 to 658 during the period from 1949 to 2013. According to the national census in 2010, there were six cities with a population of more than 10 million, whereas there were no cities of this size in 1978. The number of cities with a population of 3 to 5 million people increased from 2 to 21 between 1978 and 2010. During the same period, the number of cities with a population below 500,000 increased from 129 to 380. The urbanization rate was 17.92% in 1978, and 53.73% in 2013 (National Bureau of Statistics of the People's Republic of China, 2015). Urbanisation has attracted more labourers to work in urban regions. The proportion of all employees working in urban areas increased from 12.0 to 49.7% over the period from 1952 to 2013 (National Bureau of Statistics of the People's Republic of China, 2015). In contemporary China, many rural labourers have moved to cities to earn money and participate in city life. As a result, labour shortages in rural regions have become a key problem for rural development. Elder farmers and children have remained as residents in rural villages. Family relationships have, therefore, faced many challenges. For example, the level of care and family education provided to children in rural regions from their parents has declined (Xianzuo & Qingyang, 2015). Overall, the effect of urbanisation in China has improved the economic condition of farming families. As a consequence of the one family one child policy in China, many rural residents have remained on family farms throughout their lives. The rural labourers working in cities have experienced the difference between rural and urban regions for the first time. The willingness of rural labourers and others from the new rural generation to move to cities has been a noticeable trend and an indicator of the decline of rural regions. The national government has encouraged the combination of small communities or villages in the past decade, with the result that farmers living in the new larger communities must travel a relatively long distance to work on their farmland.

### II. Environmental Problems: Wastes, Plastic and Soil Pollution

With urbanisation and rural development, solid waste management has become a problem in rural areas, especially in the suburbs. Large amounts of construction

and household wastes are usually transported to the suburbs. According to the 2016 national report on solid wastes in 246 cities, the volume of industrial solid waste, dangerous industrial solid waste, hospital solid waste and household solid waste has reached 1.91 billion, 28.02 million, 689,000 and 185.64 million tons, respectively (Ministry of Environment of China, 2016). Rural regions, especially the suburbs, are the main disposal destinations for the city's solid wastes. Cities other than the 246 reported in the census do not have accessible solid waste disposal information; hence, the exact amounts of waste arriving in rural regions could not be calculated.

In the past decade, plastic films have been widely applied to farmland across the nation to increase grain production. China is now the largest country using plastic film mulching and consumes 1,200,000 tons of plastic film annually. Much of the plastic film degrades into plastic fragments and pollutes farmland. Some studies have shown that plastic fragments can change soil features and reduce grain production (Yan et al., 2014).

Maintaining crop production to feed a growing population is one of the greatest challenges faced by human society. The increased crop yields during the last century, and especially during the Green Revolution, were achieved through breeding for an increased harvest index and disease resistance, as well as by applying more irrigation water and agrochemicals. In terms of agrochemical pollution, fully developed farmland is usually treated with large amounts of agrochemicals, and the residues in soil can then enter the food cycle. In China's developed industrial regions, the plains of the Yangtze River Delta and the Pearl River Delta are facing severe soil pollution problems partly due to agrochemical applications (Chen & Ye, 2014).

### III. Water Irrigation Systems: Reservoir and Pond Siltation and Damage to Ditches

Water irrigation systems play an important role in maintaining crop production. In China, the extensive construction of reservoirs and ponds occurred between the late 1950s and early 1970s. Because of the monsoon climate and deforestation, in extensively developed agricultural regions soil erosion has become an environmental problem that is extremely difficult to solve. Reservoirs and ponds are important parts of the water irrigation system that face the threat of siltation, while in farming land, irrigation ditches have been damaged by unreasonable usage. According to Tian et al. (2006), siltation data from 115 reservoirs indicate that 20% of the reservoir volume has been lost, with medium to small reservoirs being silted more than large reservoirs. In Anqiu City in Shandong Province, about 30% of the irrigation systems have been damaged over the past 20 years (Gao & Feng, 2004).

## THE POTENTIAL INFLUENCE OF CHINA'S RURAL DEVELOPMENT ON AFRICAN COUNTRIES

China's experiences of rural development are of interest to African countries. In the huge continent of Africa, rural development could become a widespread business and is a national developmental target. Africa contains more than 50 countries, with different languages, cultures, climates, politics and economies. Within the various African countries there are different configurations of socialism, capitalism and traditional rural social structures. However, there are few examples in African countries of consistent efforts to improve rural infrastructure, implement population controls and develop rural industries. Rural development in most African countries has not been given the importance it has received in China. The authors believe that this is the result of differences in social institutions between China and African countries.

Rural development in China after the 1978 reform has received the attention of many researchers. For example, Fan (1991) considered the effects of technological change and institutional reform on production growth in Chinese agriculture. However, few studies have concentrated on policy-oriented rural development in China. In African countries there are many people facing the challenge of food shortages. Statistics show African poverty has shown a declining trend over the past fifteen years. Nevertheless, compared to other developing regions such as South and East Asia, Africa's progress toward poverty reduction has been consistently disappointing. When compared to a typical Asian country, the growth in Africa's GDP per capita has generated only half the reduction in poverty of that experienced in Asia (African Development Bank et al., 2015). In general, China's rural development has the potential to influence rural development in African countries.

### I. Policy-oriented Rural Development in China

The central government implemented a series of policies that stimulated the agricultural economy after the 1978 reform. These policies included institutional reform, the development of strict markets in rural regions, the cancelation of agriculture tax and taxes on special agriculture products, as well as financial support for agricultural mechanisation and rural infrastructure construction. In addition, there was also financial support provided for the education of the younger generation in rural areas. The above policies have encouraged China's rapid rural development in recent decades. China is a socialist country and all rural development has occurred in one country, with one national language and a unitary system of governance. The national and local government have strong decision-making powers and can easily implement rural development policies based on the social and economic status of regions as well as their changing trends. Since the late 1970s, the national population control policy has been one family one child, but this has changed rapidly among rural families, with parents moving to urban areas in search of part time employment. As a consequence,

the economic conditions of many families have improved, with benefits for rural development.

The different African countries have their own unique national conditions. A series of policies are needed for the future rural development of the continent. African governments should have their own specific policies for supporting rural development. Learning from China's experience of rural development, a roadmap of rural development in African countries could be developed in advance. African countries should consider the different stages of China's rural development. The first stage involved land-use policy changes, which started in the late 1970s; This stimulated farmers to produce more grain. The second stage was the opening of agricultural markets and the rapid industrialisation experienced in the 1990s, which attracted more rural labourers to work in the cities and towns. Government policies played an important role in the changes experienced by rural areas.

## II. China's Open Policy and Industrialisation Stimulated Rural Development

After the 1978 reform, the open policy has been the basic strategy of national economic development. Foreign investment and the import of foreign technology have stimulated industrialisation in China. More labour is needed to support industrialisation in urban areas. The surplus labour in rural regions have migrated to work in factories after receiving general training. Most of the construction projects in Chinese cities were completed by trained surplus labour from rural regions. Given the background of the open policy and ongoing industrialisation, farmers have more opportunities to make money. In the globalised era, African countries should adopt open policies for sustainable development. Foreign investment and industrialisation will partly solve the unemployment problems and boost rural development, especially in agro-based industries. During the changes experienced in China, the country maintained a stable social condition and adopted a continuous open market policy, which provided the best social and economic conditions to attract more foreign investment and foreign technology imports.

## III. Rural Education is Important for Rural Development

Prior to the 1978 reform, China established a rural education system, with all children required to enrol in school for elementary education. In the past 20 years, occupational education and industrialisation have intensified in China. The current rural generation has had more chance to receive an occupational or university level education than their predecessors, which has enabled them to increase their employability and has encouraged rural development. In most African countries, the residents of rural areas usually lack an elementary level or occupational education, which restricts their employment and family income. According to the African Statistical Yearbook 2014 (African Development Bank et al., 2015), the adult illiteracy rate in Africa was 37.6% and the female adult illiteracy rate was 46.1% during the period 2005–2012. In rural regions the adult

illiteracy rate is even higher. Therefore, education is a limiting factor for rural development in some African countries. For future sustainable rural development, the education of the rural population must be strengthened across the African continent, especially in rural regions.

#### IV. China Should Help to Improve Decision-making with Regard to Rural Development in African Countries

Africa is a huge continent with obvious diversity among its rural societies and cultures, as well as in relation to its agricultural production and rural development levels. The realities of agricultural and rural development are not usually recognised by foreigners (Christiaensen, 2017). In recent decades, close relationships have been established between China and most African countries. China has invested in African countries, not only in infrastructure but also in other economic sectors since the 1990s. For example, with support from the Chinese Ministry of Agriculture, 24 demonstration centres of China-Africa agricultural technology have been established since 2007. Recently, some Chinese researchers have conducted field surveys and reported several obvious inadequacies of these centres. After three years, the centres were no longer in receipt of financial support from the Chinese government, and some centres then faced the problem of operational sustainability, with no suitable connection to the habits of local agricultural producers (Li, 2015; Zhu et al., 2015; Xu et al., 2016). For example, some centres demonstrated rice planting technologies, whereas the local people in the surrounding rural areas regularly consumed potatoes and were not motivated to operate a rice planting, growing, management, harvesting and grain market system. Centres in such areas soon became disused because they did not consider the real needs of local communities. However, there were also some good examples, such as the Chinese infrastructure companies that became involved in the reclamation or improvement of farming lands for local communities. For example, in November 2015, one Chinese infrastructure company reclaimed farmland for 20 people in a small village in southern Botswana, which met the needs of the local community in that particular rural region.

The China-Africa relationship has been developing very rapidly and is important to regions. Despite this, there are few examples of African countries that have made consistent efforts to improve rural infrastructure, implement population growth controls and develop rural industries. China's influence in African agriculture is limited and should be improved in the future.

#### CONCLUSION

Moyo (2003) reported that the land question and land reforms in Africa have a long history spanning the colonial and post-colonial period. Most studies of land reform have been poorly disseminated and have tended to neglect the

emergence of various land questions, as well as the structures and processes that drive them, land conflicts and the growing deep-rooted demand for land reform. The land question that Moyo (2003) considered includes rural development, and an assessment of the evolution of the land question, as well as the class dynamics and social movements that such development is grounded upon, to provide an understanding of the political and economic context in which the farmers, agrarian capitalists and external market influences function to shape the land question in the different regions of Africa (Moyo, 2003; Moyo et al., 2013). The Fast Track land reform in Zimbabwe and its impacts on rural development have been investigated by many researchers (Cliffe et al., 2011), and is a complex issue. China's potential influence on rural development in African countries should be grounded upon the specific social systems of the different rural regions across the African continent.

China's rural development in the past few decades has been impressive and has attracted the interest of African governments and researchers. Policy is an important factor determining the pace of rural development and poverty reduction. Rural development in China has been one of the most important tasks undertaken by central government since the 1978 reform. From 1982 to 1986, the No.1 document issued each year by the Central Committee of the Communist Party of China (CPC) focused on agricultural development and rural reform. From 2004 to 2015, the No.1 document issued every year by the Central Committee of the CPC focused on agriculture, farmer wellbeing and rural development. In recent years, the central government has implemented policies providing financial support to encourage farmers working in cities to return to the countryside as part of a new village improvement campaign. In China, a series of rural development policies, an open market policy, and industrialisation, as well as rural education has stimulated the agricultural economy and rural development in recent decades. Similar actions will be invaluable for rural development in African countries. In addition, the socialist institutions and their efficient administration ensured that policy-oriented rural development and rapid agro-economy growth were realised after the 1978 reform. The one family one child policy and increasing urbanisation and industrialisation against a backdrop of the open market policy were other factors affecting rural development in China.

**ACKNOWLEDGEMENTS** This article is based on our paper presented at 'Land, the State and Decolonising the Agrarian Structure in Africa: A Colloquium in Honour of Professor Sam Moyo,' organized at the University of Cape Town, South Africa, on November 28–29, 2016. This colloquium was sponsored by the Japan Society for the Promotion of Science, Grant-in-Aid for Scientific Research (S) “‘African Potential’ and Overcoming the Difficulties of Modern World: Comprehensive Research That Will Provide a New Perspective for the Future of Humanity’ (KAKENHI 16H06318 headed by Motoji Matsuda, Kyoto University), as well as by the University of Cape Town's Research Office (URC).

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————— Accepted December 2, 2017

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