

Land Transfer and the Pursuit of Agricultural Modernization in China

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Agriculture, countryside and peasantry have been priority concerns of the Chinese government, with land and agriculture being the most crucial. With a growing population, less arable land and often relatively low quality land, Chinese peasant agriculture has been undergoing a form of modernization. While peasants enjoy land contract rights as a result of the Household Responsibility System (HRS), the state has been promoting transfer of land use rights in order to promote modern agriculture. This paper seeks to understand recent developments in land and agriculture, particularly exploring the transitions of land and agricultural institutions since 1949 and land transfers since the HRS. In so doing, this paper reveals that the state has been strategically responding to various challenges in order that land institutions and policies are always geared to achieving agricultural modernization. During the state's continual drive for modernizations, particularly agricultural modernization, peasants' livelihood is impacted and needs to be protected.

Keywords: land transfer, agricultural modernization, land institution, peasants' livelihood

In early 1990s, the issues of agriculture, countryside and peasantry were brought to the fore in form of a combined Chinese term - 'sannong'² (Wen 1996). Since the early 2000s this concept has been

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² The three aspects - 'agriculture' (*nongye*), 'countryside' (*nongcun*) and 'peasantry' (*nongmin*) are called 'sannong' in Chinese, *san* meaning 'three', and *nong* meaning 'agro'. All three words in Chinese begin with *nong*.

the top priority of the agenda of both the Chinese Central Government and the Communist Party (Hu 2002; Jiang 2002; Xu 2007; Ye et al. 2009). China's rural policy has been oriented towards solving the '*sannong*' issues: the need to develop agriculture, the need to simultaneously improve the living conditions of the peasantry and the need to augment the strength and quality of the countryside (Ploeg and Ye 2010). The key policies advocated (and academically debated) have been land transfer (*tudi liuzhuan*) and agricultural modernization - both of which relate directly to the first issue - agriculture (Zhang and Donaldson 2008; Chen 2013; Han 2014). Rural-urban migration and the hollowing out of rural communities are related to the second issue - the countryside (Zhou 2008; Wu and Ye 2014), while the relaxation of the household registration (*hukou*) system, with peasant workers living in cities and a left-behind population in rural communities is related to the third issue - the peasantry (Du 2004; Ye 2011; Ye and Pan 2011). However, all these issues and policies are interrelated and interlocked with each other, with issues about rural land and agriculture always being central and at the forefront (Chen 2002; Deininger et al. 2013).

During recent years, land transfer and modern agriculture have become a salient and overwhelming aspect of rural China (Dang 2014). Land transfer has been seen as the prerequisite for the development of modern agriculture, or scaled-up agriculture. Since modern agriculture normally requires certain scale, it is thought imperative that the tiny land plots contracted by individual peasants should be transferred to 'modern' farms (Yuan and Lin 2013). An extraordinary and accelerating amount of land has been transferred in various forms in recent years, often concomitant with the increasing penetration of external capital into agriculture and the countryside (Ministry of Agriculture, 2014), showing signs of the 'rise of agrarian capitalism' (Zhang and Donaldson 2010). However, the current land transfers, and the resultant scaled-up modern agriculture, not only encounter a long history of peasant farming practice (Jiang and An 2003; Pan 2012), but also generate serious implications for the livelihoods of millions of peasant households, as well as national policies and development strategies.

The current development of land transfer and modern agriculture did not emerge suddenly or all at once, but has emerged as the result of the evolution of many interwoven factors: physical, social, political and institutional specificities. Thus, to understand the current features of land and agriculture, one has to study the wider and historical contexts, particularly the institutional and

policy changes of agricultural production and land tenure arrangements. Although the occurrence of land transfer and modern agriculture are not wholly representative of the entire structure of land and agriculture in China at the moment, it does reflect certain trends of institutional transition and a specific development trajectory of land and agriculture in China. This paper starts by highlighting the historical contexts surrounding the transition of land and agriculture since 1949. It continues with an assessment of challenges that emerged under the Household Responsibility System (HRS) after 1978. Finally, it overviews the land transfers that have taken place in recent years, and examines the state's drive for agricultural modernization.

HISTORICAL CHANGES IN LAND INSTITUTIONS AND AGRICULTURAL PRODUCTION

Specific land tenure patterns and institutions always have direct implications for agricultural production. Major changes in land policy are closely connected with key institutional changes related to agricultural production (Yuan and Lin 2013) and directly correspond to the official narratives at different times. This is because specific modes of agricultural production are generally the result of specific land tenure systems and institutional arrangements. More than most other countries, China has experienced dramatic institutional changes in both these domains. Here are some condensed reviews of the evolution of institutions and policies related to land and agricultural production since 1949, with a particular focus on rural farmland.

The basic rural land institutions since 1949 in China can be categorized as falling into three stages or periods: land reform (1949-1953), collectivization (1953-1978) and de-collectivization (1978-present). Kerkvliet and Selden (1998) describe these three stages as bringing about two transformations. The first transformation began with redistributive land reforms (1949-1953) and continued with collectivization (1953-1978). This was followed by the second transformation beginning in the late 1970s, when rural households received the contractual rights to cultivate small plots of land.

The chronology of different modes of agricultural production completely coincides with changes in land institutions. After 1949, immediately following land reform, a smallholder system was experimented with. This was quickly followed by various forms of agricultural collectivization. Since 1978 the Household Responsibility System (HRS) has gradually replaced the communal

system.

Land Reform and Family-based Peasant Farming (1949-1953)

Before 1949, China had private ownership of property, with large disparities in people's living standards and access to resources, especially in rural areas (Zhang 2003). As a largely agrarian country with 90 per cent of the population living in the countryside, peasants had strong grievances over land tenure, as landlords and rich peasants, who accounted for only ten per cent of the population, but owned 70-80 per cent of rural land, whereas poor peasants, tenants and farm labourers, who made up 90 per cent of the population, only owned 20-30 per cent of rural land (Ma 1999; Wu 2009). Shortly after the communists came to power in 1949, they carried out a radical land reform that gave land ownership to poor tenant farmers (Wu 2009). As a result, 300 million peasants received 700 million *mu*³ of land (about 45 per cent of total arable land) formerly owned by perhaps 10-12 million people (Gurley 1975; Kong 1993; Qian 2000). The New China ruled by the Communist Party achieved its objective of 'Land to the Tiller' (*gengzhe youqitian*). This land reform eliminated the landlord system in the countryside, equalized land ownership within villages, broke the domination of the landlord-gentry class and transferred power for the first time to poor peasants and tenants. Landlords, as a class, were wiped out by mass peasant struggles against them, land was confiscated and landlords sometimes executed (Gurley 1975; Kerkvliet and Selden 1998). This land reform helped consolidate the position of the Communist Party at the village level as well as the national one (Kerkvliet and Selden 1998), and was more a preparation for further socialist development than about giving land to the poor peasants (Hinton 1966; Gurley 1975; Kong 1993). It should be noted that, although land reform redistributed land and power, it did not change the principle of private land ownership, instead bringing about a shift from private ownership by landowners to private ownership by peasants (Stavis 1974; Qian 2000).

As a result, agriculture was transformed from the landlord-owned farms, worked by tenants and hired labourers, to smallholder family-based peasant farming. The peasantry had direct control over their own means of agricultural production. This kindled peasants' enthusiasm, accelerated

³ One *mu* is 1/15 of a hectare. One yuan is more or less equivalent to US\$ 0.164.

production and resulted in a remarkable increase in grain output and productivity and the development of the rural economy (Chen 2002; Wu 2009). The land reform also raised the consumption level of most peasants and increased rural savings available for investment. However, much of the increase in rural savings was captured by the state for investment purposes through taxation, the profits of state enterprises and differential pricing. In sum, the success of land reform developed agricultural production, which was a precondition for the subsequent agricultural collectivization and the country's industrialization (Gurley 1975; Ma 1999).

Agricultural Collectivization (1953-1978)

From 1953 onwards, rural China underwent a process of collectivization or socialist transformation from small private holdings into large-scale communes. This occurred in four stages, with overlaps between them.

Stage one: Mutual Aid Teams (1953)

In the course of land reform, land was distributed on a per capita basis, which resulted in many difficulties and inefficiencies in farming and management (Stavis 1974; Qian 2000). The Communist leadership advocated and encouraged the formation of Mutual Aid Teams (MAT) (*huzhu zu*), the function of which was to pool privately-owned resources such as tools, draft animals and labour power, in order to compensate for shortages of labour and other inputs at times of peak demand. As this was done on a voluntary basis, land was still privately owned and managed by the peasants (Stavis 1974; Ma 1999; Qian 2000). Family-based smallholdings peasant agriculture was still practiced in MAT period. However, the establishment of MATs was regarded a transitional phase from a private economy to a collective economy with the aim of pooling resources amongst peasants, so as to accelerate agricultural production (Wu 2009).

Stage two: Lower-level Agricultural Producer Cooperatives (1953-1956)

As private land ownership might have allowed a reemergence of traditional patterns of distribution of wealth and power, and because of some difficulties in organizing large scale development projects,

the Communist leadership subsequently recommended the formation of elementary or Lower-level Agricultural Producer Cooperatives (Lower APC) (*chujī she*). The peasants still privately owned the land and other capital goods, with households pooling their assets such as land and tools and managing the land collectively (Stavis 1974; Gurley 1975). This signified the beginning of authentic collective agriculture and a change in peasants' everyday life. The harvest was shared according to a complex formula in which peasants received one share proportional to the land, and other resources they had contributed to the cooperative, and another share on the basis of the labour they performed for the cooperative in that year (Stavis 1974; Gurley 1975).

Stage three: Higher-level Agricultural Producer Cooperatives (1956-1958)

Presumably in order to enhance the mobilization of labour for large development projects and have more financial power for investment, some Communist leaders proposed that the Lower-level APCs should be immediately consolidated into larger, more socialized, collective farms, the advanced or Higher-level Agricultural Producer Cooperatives (Higher APC) (*gaoji she*). In the Higher APCs, the land previously privately owned by the peasants, their tools and other production means were all transferred to the collective. Peasants no longer had any private claim on their former holdings of land and other capital goods, and now they were owned by the collective, which centrally managed agricultural production and distributed outputs and income. Peasants were paid entirely according to their labour input into collective farming, and the share based on the contribution of property was eliminated. The Larger APCs were thus able to withhold large percentages of income for collective purposes (Stavis 1974; Gurley 1975; Ma 1999).

Stage four: People's Communes (1958-1978)

After the formation of the Higher APCs, a further enlargement of the scale of rural organization into People's Communes (*renmin gongshe*) was made so as to permit better coordination of rural construction projects and provide an even larger economic base for financing rural development (Stavis 1974). Thus, the final advancement to socialist agriculture was characterized by the establishment of the communes in 1958. By the end of that year, rural China was almost fully

‘communized’ (Ma 1999; Wu 2009). The former Higher APCs became production brigades within the communes, and the former Lower APCs became production teams. The communes also became the basic government units, they ran factories, schools, banks and controlled their own media (Gurley 1975).

In the early 1960s, The Great Leap Forward set unrealistic agricultural production goals which, coupled with natural disasters, brought about devastating famine and the loss of many lives (Ma 1999; Wu 2009). After that, a three-level system, of commune, brigade and team was established, with production team being the basic unit for everyday production and management, and ownership being shared between the three levels of commune, brigade and production team (*sanji suoyou duiwei jichu*) (Stavis 1974; Ma 1999; Wu 2009). This system formed the basis for China's rural collectives for the next two decades (Kerkvliet and Selden 1998).

Several authors lauded the achievements and performance of Chinese agricultural collectivization, and believed that the centrally planned command economy played an important role in the increase of food production in this period (Stavis 1974; Kerkvliet and Selden 1998; Li and Wang 2011). However, it was also widely recognized that the state's programme of low consumption and extracting agricultural surpluses resulted in a stagnation in rural incomes throughout the two decades of the collective era (Kerkvliet and Selden 1998). Collectivization gradually reduced the peasantry's enthusiasm for agricultural production, as they received almost the same income whether they worked hard or not, and were assigned points based on tasks that were difficult to monitor (Huang et al. 2008; Li and Wang 2011). What little agricultural growth there was came mainly from increased inputs and the enormous investments made by central and local government funds, the rigidity of the system inhibited institutional innovation and the organization of production, and the pricing system and marketing institutions provided no incentives (Wen 1993).

On the positive side, a lot of large scale rural infrastructure, particularly irrigation and soil improvement were constructed during the collectivization period and these continue to benefit agricultural production to this day. In addition, new agricultural technologies such as seedlings and chemicals were introduced from the late 1970s, becoming widely available in the following decades. The industrial and infrastructure foundations had also been laid down to some extent, becoming the

base for the country's development in the next period (Stavis 1974; Gurley 1975; Kerkvliet and Selden 1998; Ma 1999). This collective system had successfully achieved capital accumulation from agriculture which was critical for the national industrialization strategy (Ma 1999). It was estimated that between 1953 and 1978, the state siphoned around 600-900 billion *yuan* from agriculture and the countryside through the 'price scissors' mechanism, which was the main source for the primitive accumulation capital for industrial development (Wang and Zhang 1993; Zhang 1993; Wen 2000).

A decade of the Cultural Revolution (1966-1976) made peasant livelihoods worse. Constant instability in the countryside and pressure against collectivization came to a head in the late 1970s, when peasants pressed to expand the role of the household and market, which opened the way to change (Gurley 1975; Zhang et al. 2006).

De-collectivization and the Household Responsibility System (1978-present)

The collective system was broken up in 1978, and this became a milestone of China's rural reforms and its opening up (Ma 1999; Liu and Cheng 2007). The Household Production Contract (*baochan daohu*) or Household Responsibility System (*fentian daohu*) was established, an innovation that allowed peasant households to contract land and manage agricultural production on their own initiative while the farmland remained in the ownership of the rural collective. The system enabled peasants to use land under long-term contracts and keep their produce after paying taxes. Accordingly, agriculture returned to a system of individual farming, which kindled the peasantry's enthusiasm for production. The reform shifted the Chinese economy from a planned system to a market-oriented system and towards a more open economy (Zhang 2003) and agriculture shifted from a collective to a family-based system (Brandt et al. 2002). Rural households emerged as the primary locus of agricultural production and many other economic activities, and could exercise free decision-making about what to grow on their farmland (Kerkvliet and Selden 1998).

HRS was a response to the urgent need to introduce an incentive mechanism to restore and expand agricultural production with the goal of economic reconstruction and diversification in rural China (Wu 2009; Brandt et al. 2002). It was in fact an indigenous creation of peasants from Xiaogang Village (located in Fengyang County in Anhui Province) in 1978 and was later endorsed by the central authorities. It was affirmed and supported by Deng Xiaoping, and later was widely

applauded and spread at the national level. The first policy provision was '*Decisions on Speeding up Agricultural Development*' promulgated by the Central Committee of the Communist Party of China (CCCPC) in December, 1979. The first official introduction and elucidation of HRS was made through a CCCPC document '*Several Issues on Further Strengthening and Improving Agricultural Production Responsibility System*' in September 1980. The No. 1 Policy Document⁴ of 1983 claimed the HRS to be 'a great creation of the Chinese peasants' and stipulated that it would be the basis of China's agricultural system.

The HRS land redistribution started in 1978 and was completed by 1984, as such the contract starting year can differ by several years between provinces (Giles and Mu 2014). The contracts were initially for 15 years in the first round. During this period, although the central government mandated that rural households be given 15 years tenure over their contracted land, in practice, land re-allocations were often made by collective authorities to restore equitable land distribution, even at the expense of tenure security (Brandt et al. 2002; Zhang et al. 2004). As 1993 approached and the first round land contracts were due to expire, the state proclaimed that individual peasant household land contracts were to be extended and would be unchanged for a long time. The 1993 No. 1 Policy Document by CCCPC and the State Council '*Policy Measures on Agriculture and Rural Economic Development*', and the Third Plenary Session of the 15th CPC Congress in October 1998 officially declared that the second round of land contracts was to be prolonged to 30 years. *The Law of the People's Republic of China on Land Contract in Rural Areas*, issued in 2002, stipulates that the term of contract for arable land is 30 years, the term of contract for grassland ranges from 30 to 50 years, and the term of contract for forestland ranges from 30 to 70 years. The new policy for this second round contract proposes freezing land adjustments during the new contract period regardless of population growth, which is a measure aimed at stabilizing tenures and thereby encouraging farm investments. However, minor re-allocations and adjustments often take place within villages, and 62 per cent of peasants in a survey said they prefer the existing situation: one that periodically

⁴ No. 1 Policy Document refers to the first policy document promulgated by the Central Committee of the Communist Party of China and the State Council every year. Since 1982, major agrarian reforms and policies have always been first introduced and elaborated in these documents, signifying the importance that the Communist Party and the central government attach to agrarian issues. From 1982 to 1986, five consecutive No. 1 Policy Documents mapped out rural reforms; from 2004 to 2015, 12 consecutive No. 1 Policy Documents have underlined the importance of agrarian issues.

reassigns land among farm families in response to changes in the composition of their families (Kung and Liu 1997; Yang et al. 2001).

Under HRS, each household taking responsibility for a field also inherited a tax burden: a portion of the former team's quota of grain sales to the state, at a price fixed by the government (Kung and Liu 1997). As such, HRS was perceived by peasants as a shift of responsibility from the collectives to individual households - 'paying enough to the state, saving enough for the collective and all that's left is ours' (Zhang et al. 2002a). The HRS proved to be considerably more efficient than the commune system in many ways (Wen 1993; Yang and Wang 2002), though benefiting from the technological, industrial and infrastructure foundations established in the commune period. Agricultural policy after the reform was complemented with a package of market-oriented reforms such as pricing, the reorganization of production, marketing, investments, technology and trade, and shifts from heavy to light industry and from infrastructure to consumer products (Lin 1992; Huang et al. 2008). China's rural poor (as officially defined) decreased drastically after the reform, and peasants' consumption also increased due to the higher incomes obtained after the reform (Kueh 1988; Zhang 2003).

CHALLENGES AND INNOVATIONS UNDER HRS

In the earlier stage of HRS, the three types of land rights (ownership, contract and use) are clearly divided, so that land ownership is with the collective, and both the land contract rights and land use rights are with the peasants. This is referred to as the splitting/division of land ownership and land use rights/land contract rights, and is considered to be the great pioneering achievement of the Chinese peasantry and rural reform since 1978 (Christiansen, 1986). However, many challenges in relation to farm land and agricultural production have emerged during the processes of HRS. In order to respond to these challenges, different innovations in tenure arrangements and land management have been tried. All these trials and practices do not challenge collective ownership of farm land.

Land Fragmentation and Innovative Tenure Experiments

The egalitarian land distribution that occurred under HRS led to tremendous fragmentation of farmland. In theory, land distribution in a village was conducted first by categorizing village arable land into several classes according to land fertility and productivity, then the land of the different categories was evenly distributed to households according to the number of family members. In reality, village arable land was normally dispersed in several big plots in different locations. Each of these plots had different physical conditions such as soil fertility, access to irrigation etc. Although sometimes the differences were not significant, each household would want to get a share of the better plots. Thus, rural land distribution in many cases was implemented so as to evenly distribute all the village arable areas among all the village households. In many villages, household landholdings are very small (e.g., 0.2-0.6 ha), and the average number of land plots held is five to ten, giving an average plot size of about 0.3-1 *mu*. Many of these household plots are dispersed in different locations and often at some distance from each other (Kong 1993; Ye 2002).

Land fragmentation has led to a serious decline in land investment, and has acted as a constraint on land use efficiency and the development of large and medium scale farms (Qian 2000). Some land tenure trials emerged, aimed at enlarging the scale of land operations, by transferring land to other entities or back to the collective, or by developing a land market. I hereby outline some of the main types of trials.

First there is the *Two-field System (liangtian zhi)*, a popular practice that combines grain ration land (*kouliang tian*) and responsibility land (*zeren tian*). Grain ration land is typically allocated on the basis of household size to ensure that each household produces enough for its own consumption needs. Responsibility land is allocated to households to engage in agricultural production. There may be restrictions on how they can use the land and the possibility that some of the land may be taken away and allocated to another household (Brandt et al. 2002; Zhang et al. 2002a; Zhang 2003). Secondly there is the *Scaled-up Operation (guimo jingying)*, which has been practiced in some counties (such as Shunyi County in Beijing Municipality) since 1987. In this system, plots were taken away from peasants prior to the expiration of the contracts and reassigned to fewer selected peasant households in order to increase the scale of operations (Zhang et al. 2002a; Zhang 2003). Thirdly there is *Reverse Renting and Sub-contracting (fanzu daobao)*, a system under which village authorities rent land back from peasants, whose land use rights were initially contracted from village

collective, and then sub-contract the land to a third entity. This practice was found mainly in the southeast coastal provinces (Zhang et al. 2002b; Zhang et al. 2004). A fourth form is the *Land Trust* (*tudi xintuo*), an innovation to develop a local land market where villagers can 'deposit' the land rights of their contracted land, and the trust then acts as a broker, actively matching supply with demand, which could come from outside agribusinesses. This practice was first tried in Shaoxing County in Zhejiang Province in 2001 (Zhang et al. 2004). A fifth approach is the *Four Wastelands Auction* (*sihuang paimai*), a practice that started from the late 1980s onwards in Lvliang Prefecture in Shanxi Province. This was a new path designed to tackle soil erosion on the barren mountains of the Loess Plateau. Instead of land being allocated to peasants on the basis of household size, wasteland use rights were put up for open auction. There were four types of wasteland: waste mountains, waste gullies, waste hills and waste river banks (Zhang et al. 2002a, 2002b; Ho 2005).

Land Appropriation and the Protection of Farmland

Since the HRS and land redistribution, peasants in general enjoyed quite a few years of relatively stable use of land for farming, especially in the villages that are distant to urban centers and are not covered by a national or local infrastructure development plan. However, during the past 20 years, there have been extensive land appropriations for urban expansion and infrastructure construction, which mainly affected peri-urban villages and those covered by an infrastructure development plan. Since the 1980s, China has shied away from the previously-favoured centrally planned system of socialist primitive accumulation and, instead, undertaken state-led development and state-directed accumulation strategies (Sargeson 2013). As a result, a considerable share of the continuous economic growth has come from land based development activities - mostly urban expansion and infrastructure construction. In particular, peri-urban land expropriation has offset the revenue shortfalls of local government, propelled urban-based capital accumulation and contributed to meeting targets for economic growth, and has thus been warmly embraced by local governments (Lin and Ho 2005; Lai et al. 2014). It is estimated that land commodification has become a major source of municipal finance: accounting for over 30 per cent of total municipal budgetary revenue and nearly 40 per cent of the funding for urban maintenance and construction (Lin and Zhang 2014). On the other hand, this appropriation of land has brought about countless home demolitions, the

resettlement of peasants and created mass landlessness (Sargeson 2013). This has given rise to severe social conflicts, and land skirmishes have accounted for the majority of mass rural conflicts, which have undermined the country's social stability and economic development.

Land based development has led to a serious decline of farmland at national level. While the Chinese Central Government has set a strict farmland protection objective, with the aim of ensuring that the amount of national farmland does not fall below the 'red line' of 1.8 billion *mu*, by 2008 it had already dropped to just 1.82574 billion *mu*. This leaves little room for any further loss of farmland, which may be problematic, as the trends of urbanization and industrialization show no signs of abating (Long et al. 2012). Moreover, given that central government sees urbanization as a long term development strategy necessary to maintain economic growth, this poses a challenge of where to find land for urban expansion, especially when the peri-urban areas are often high quality farmland? In this regard, a land use policy entitled '*Balanced Increase and Decrease of Farmland*' (*zengjian guagou*) came into force in 2006, which has tackled this challenge by reclaiming a certain amount of farmland from rural villages to balance the same amount of peri-urban farmland due to be appropriated by urban expansion (Ye and Meng 2012). The reclamation in rural areas is done through demolishing peasant homesteads, converting the land and obliging peasants to resettle in high-rise buildings. This policy was piloted in five provinces in 2006 and extended to 19 provinces in 2008-9. It has been approved by the state central government, as a response to the hollowing out and vanishing of rural communities. However, media reports have shown that most peasants are unwilling to move from their homesteads into crowded high-rise buildings and some social research has concluded that this developmentalist policy has squeezed the space of peasants' everyday life and agricultural production (Ye and Meng 2012).

Peasants' Heavy Burdens and the Exemption of Agricultural Taxes

In the 1990s, the Chinese government maintained its industry-oriented and urban-biased development policy and extracted huge resources from the countryside through imposing taxes and fees. Peasants bore increasingly heavy burdens, especially after the tax reform of 1994. The period between 1994 and 2002 was considered the worst time for peasants - when they bore the heaviest tax burden for more than thirty years (Li 2002; Zhao 2007; Chen 2011). This was due to the 1994

reform, launched by central government which established a tax sharing system with local governments. The reform strengthened the capacity of the national government to collect revenues from local governments, but the centre shifted responsibility for some expenditures to local governments and provided greater autonomy to lower levels of government to levy local taxes and fees in order to make up the balance between central remittance and local expenditures. As a result, the lower levels of government shifted their key duties from service provision to revenue collection (Cao 2000; Kennedy 2013). During the late 1990s there was little investment in agriculture itself. Most of the farmland facilities and irrigation infrastructures in use at that time had been constructed in the collectivization period. Peasants' incomes increased very slowly and the urban-rural gap broadened sharply under the dual economic system. Peasants' investments in agriculture were hampered by their low incomes and heavy tax burdens. The lagging behind of agriculture and countryside increasingly came to be seen as inconsistent with China's overall rapid economic development. As agriculture was non-remunerative at the time, much farmland was abandoned (Zhao 2007; Chen 2011).

At the end of 1990s, the Chinese government made major adjustments to the aims and objectives of agricultural and rural development, with a consensus emerging over the need to increase peasants' incomes. A set of supportive policies on agricultural development was launched following the guidelines of 'giving more, taking less and deregulating' (*duoyu shaoqu fanghuo*). Under this policy framework, a pilot reform on rural taxes and fees started in 2000, and agricultural taxes were fully abolished from 2006 onwards. This was an extraordinary event in Chinese agrarian history, since an agricultural tax had been collected for more than 2,000 years. The reform of rural taxes and fees helped to reduce the peasants' economic burden by more than 120 billion *yuan* every year, which greatly stimulated peasants' enthusiasm incentives for agricultural production (Zhou and Chen 2007). The removal of the agricultural tax was also accompanied by another key policy support to the rural areas, the *Construction of the New Socialist Countryside* (Ye 2006).

Rural-Urban Migration and the Feminization and Greying of Agriculture

A massive and ongoing rural-urban migration started in the 1990s, since which time a significant amount of Chinese peasants have turned into 'peasant workers' (*nongmingong*) supporting the

process of industrialization and urbanization. By the end of 2013, there were 166 million peasant migrant workers (National Bureau of Statistics, 2014). Due to institutional segregation between rural and urban areas, their own economic constraints and the absence or curtailment of their 'citizenship' rights (Wang 2009), migrant workers usually cannot move their families to the cities. This creates numerous split families - 'left-behind households'. Migrants have no choice but to leave some of their family members in the village and a unique 'left-behind population' has emerged in rural areas. In some areas, the rural demographic of China comprises left-behind children (*liushou ertong*), left-behind women (*liushou funv*) and left-behind elderly (*liushou laoren*) (Du 2004). According to estimates from the National Population and Family Planning Commission in 2009, there will be 500 million inhabitants in cities, 500 million in the countryside and 500 million floating between rural and urban areas in the next thirty years⁵. It is estimated that there are approximately 61 million left-behind children (All-China Women's Federation 2013), 47 million left-behind women (Zhang and Zhang 2006) and 50 million left-behind elderly (Wu 2013) in rural communities.

After more and more rural labourers migrate to cities, agriculture is now mainly undertaken by those women and elderly left behind in the countryside, leading to the 'feminization' and 'greying' of agricultural production. As a result, the countryside is now short of labours for small scale family-based agricultural production, leading to the extensification of land use, less multiple cropping and land abandonment. These have become potential threats to food security in China. Today the question that is being asked is 'who will till the land?' (Mu and Walle 2011; Zhu and Yang 2011; Ye et al. 2013).

The above mentioned challenges have had far reaching implications for agricultural production and the national food security. This has led to initiatives for further splitting, or dividing the land use/management rights from land contract rights, and proposals for government intervention to increase the scale of farm operations (Wen 1993). Amongst others, the most salient practices are land transfer and modern agriculture. After the First Round Land Contract (1978-1993) and the Second Round Land Contracts (1993-present), some scholars contend that a third phase can be

⁵ 'Chinese Populations Will Be Divided into Three Groups'. http://news.xinhuanet.com/newscenter/2009-04/14/content_11184857.htm, 15 April 2009 (accessed 20 December 2014).

delineated, that is, land transfer and modern agriculture, or termed 'the rise of agrarian capitalism' (Jiang and An 2003; Zhang and Donaldson 2008, 2010).

LAND TRANSFERS

During the initial phase of the HRS, there was a debate about the likely consequences of small scale land landholdings and the fragmentation of land plots, with most commentators arguing that small individual land holdings and fragmented tiny land plots would have a series of negative consequences, including low land productivity, constraints on accumulation and capital investment, obstacles in the application of new technology and in obtaining economies of scale, and hindrance for labour migration etc. Land transfers were recommended at the time as a way of tackling such problems (Yang 1985; Zhang 1988; Yuan and Lin 2013). However, the first journal article discussing land transfer was published by Jinglun Yang (1985) and the first with land transfer in the title was by Zonglun Zhang (1988). The number of journal articles on land transfer steadily increased since then and peaked after 2013 when commercial capital was searching for investment opportunities in agriculture and the countryside and the concept of family farm (*jiating nongchang*) was being strongly advocated by the government.

In this paper land transfer refers to the transfer of 'land use rights', that is, peasants who own the land contract rights (from the collective) and transfer the land use rights to other farmers or economic entities (Zhang 2001). This is to say that the land use rights are transferred while the contract rights remain with the peasants. As land is owned by the collective, when it is transferred, the three types of rights, ownership, contract and use, are then split. This is widely called 'the split - or the division - of three rights' (*sanquan fenli*) on rural land (Li 2002). Land transfer has become a massive movement within China, and is supported by policies, particularly by local governments. The other economic entities acquiring the land are mostly industrial capital interests from the cities.

The Evolution of Policies on Land Transfer

The policy of land transfer has undergone an evolutionary process, which reflects the development strategies of the state as well as the changing perceptions of central government on agriculture, the

countryside and peasants. Reviewing the official discourses and narratives on land transfer since rural reform in early 1980s, we can observe an obvious shift from strict prohibition on land transfers to relaxation, and promotion.

In early 1980s, land transfer was strictly forbidden. *The Regulations Concerning Land Requisition for National Construction*, issued by the Standing Committee of the Fifth National People's Congress in 1982 stated that, 'any entity is forbidden to purchase or rent land directly from rural communes, brigades and production teams or in any forms. Rural communes, brigades and production teams are forbidden to use land as shares for participating in any enterprise or business.' Article ten of the 1982 Constitution said that 'no organization or individual may appropriate, buy, sell or lease land, or unlawfully transfer land in other ways.' This prohibition of land transfer was the legacy of the centrally planned economy in the People's Commune period, and went hand in hand with the strict control of the countryside and rural production. Since the HRS came into effect, land contract rights have been in the hands of individual peasants, and thus have the potential to be more flexible.

The 1984 No. 1 Policy Document of the Central Government loosened the control on land transfer, stating 'encouraging the land to be concentrated in the master hands of farming; peasants who ask to not contract farmland or to contract less farmland due to their inability to carry out farming or doing other business, can hand their land over to the collective for future arrangement or, by approval of the collective, transfer their land contracts to others.' Although the policy on land transfer was relaxed at that time, land transfers rarely took place. This was because farmland was only newly distributed to peasants in early 1980s, and peasants had much enthusiasm for working their plots of land. In addition, rural-urban migration was still in its infancy stage, and most able bodied peasants remained in rural communities and worked in agriculture (Shi and Yu 2001; Zhao 2007). However, in some southeastern coastal regions, the Township and Village Enterprises (TVEs) were already highly developed in the 1980s, and many local peasants worked in these, they 'left the land but not their home villages, they entered factories but not the cities' (*litu bulixiang jinchang bujincheng*) (Kerkvliet and Selden 1998; Ye et al. 2010). This development posed a new challenge that some peasant households in these regions were no longer able to farm individually.

In response to this new challenge, the State Council approved trials on concentrating land

holdings in some coastal provinces and cities in 1987, which extended the transfer of land use rights beyond farming units and individual households. This marked the start of the trial phase of land transfer. However, this trial was not extended nationally to the countryside as a whole and was effectively suppressed by the extraordinary heavy agricultural taxes and levies at that time (see previous section), which resulted in land abandonment. Farming was not remunerative at this time and some peasants were subcontracting their farmland to others by paying some subsidies instead of claiming rent. Thus, land transfer did not take off on a widespread scale in the 1990s (Zhang 2001).

However, the Report to the 15th National Congress of CPC in 1997 highlighted the issue of agricultural modernization, and declared the importance of ‘promoting agricultural commoditization, specialization and modernization.’ In the Chinese context, agricultural modernization usually requires the scaling up of farmland plots, and so this can be seen as an encouragement for land transfer (Liu and Yan 2012; Yuan and Lin 2013).

The 2013 No. 1 Policy Document announced the intent ‘to inspire and support the contracted land to be transferred to specialized large-holders, family farms and peasants’ cooperatives, to facilitate certain scaling up of agriculture in various forms.’ This is a clear policy incentive for land transfer. Equally, a series of policy documents and practical guidance that favour land transfer have been issued by different state bodies. These include the *Notice on the Transfer of Land Use Rights of Peasant Household Contracted Land* (by the CPC in 2001), the *Law of the People's Republic of China on Land Contract in Rural Areas* (by the National People's Congress in 2002), *Measures for the Administration of the Transfer of Land Management Rights of Peasant Household Contracted Land* (by the Ministry of Agriculture in 2005), *The Real Rights Law of the People's Republic of China* (by the National People's Congress in 2007), the *Decision on Major Issues Concerning Rural Reform and Development* (by the Third Plenary Session of the 17th CPC Central Committee in 2008) and others (Zhang 2014).

In order to facilitate land transfers through open market transactions, a movement for certifying and registering land rights was established (Zhang and Chen 2013). The 2010 No. 1 Policy Document of the Central Government ‘*Suggestions on Enhancing the Concerted Urban and Rural Development and Strengthening the Development Foundation of Agriculture and the Countryside*’

advocated, ‘expediting the work of determining, registering and certifying the land rights for the collective ownership of land in villages, and the usufruct rights for rural house sites and collective construction land’. In the Report on the Work of the Government delivered at the First Session of the Twelfth National People's Congress on March 5, 2013, Premier Wen Jiabao stated that, ‘we have made comprehensive progress in determining, registering and certifying collective land ownership, and carried out trials for registering contracted rural land use rights.’ These policy initiatives are *de facto* for facilitating rural land transfer (Zhou 2009; Tang and Zhang 2012).

On the Website of Fengyang County of Anhui Province, where the HRS initially emerged, one can find the following policy statement concerning land transfer and scaled-up land concentration.

Promoting land transfer in the countryside is conducive to optimizing the allocation of land resources, to solving the problems of fragmented and small-sized farmland operation, and increasing the economic returns to land. It is beneficial to the strategic adjustment of agricultural structure and contiguous land development and the scaling-up of agriculture, allowing for agricultural intensification and specialization. The conventional farming system is about to be altered by land transfers, bringing agricultural benefits and improving market competitiveness; the use of production factors (such as land, capital, technologies, and labour) will be optimized or re-allocated. This will accelerate rural labour migration and the comprehensive and integrated rural-urban construction leading to the realization of concerted rural-urban development (Fengyang County 2009).

The official narratives about land transfer can be traced back to the outset of the HRS, later accompanied by policies about ‘agricultural modernization’ and ‘the construction of the new socialist countryside’ and others. Since the start of the new millennium these laws and policy documents have established a solid foundation for promoting and supporting land transfer in China’s countryside. As such the volume of land transfer has increased in recent years (see Table 1).

Table 1. Scale of land transfers in China (2008-2013)

Period	Areas of land transferred in	Land transferred as a percentage of the total
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	<i>rural China</i>	<i>land contracted to peasant households</i>
By 2008	106 million <i>mu</i>	8.7
By 2009	150 million <i>mu</i>	12
By 2012	254 million <i>mu</i>	21.2
By 2013	340 million <i>mu</i>	26

Sources: author's summary from various reports (Wu 2013; Ministry of Agriculture 2014; Wang 2014).

According to data from Ministry of Agriculture (2014), by the end of 2013, the total land transferred in rural China reached 340 million *mu*, more than three times the amount that had been transferred by the end of 2008. This land accounted for around 26 per cent of the total land contracted to the peasant households. There were more than 2.87 million specialized large-holders/households with over 50 *mu* of land and more than 870,000 'family farms'. The peasant-household contracted land transferred to industrial and commercial enterprises/capital increased by 34 per cent between 2011 and 2012 and the figure in 2013 showed a rise of 40 per cent compared to 2012.

Potential Impacts on Peasants' Livelihood and Facilitation of Modern Agriculture

There have been a great number of media reports and academic papers on land transfer, particularly during the past two or three years. As more and more land is transferred and policies supporting this are implemented, there has been a growing debate over this issue amongst academics. The different views on land transfer mainly reside in the different aspects and foci of research, largely resulting from different disciplines and their traditions. This also reflects a trade-off of land transfer in reality, in terms of social impacts and economic benefits.

Many anthropologists and some sociologists tend to focus their discussion on the impacts of land transfer on peasants' livelihoods and rural society, and often deleterious ones. They point out the problems and negative implications of growing land transfers and warn local governments about the dangers of allowing large capital investments in agriculture (Chen 2011). They argue that big farms created by capital penetration into the countryside and land transfer are inappropriate for China's rural conditions, which are much better suited to small farms that bring greater economic and social benefits (He 2011). When land is freely transferred in the market, there is a potential risk

of land grabbing by capital and peasants are more liable to being dispossessed, as they are not well informed about changing markets (He 2013). Zhao and Tang (2011) argue that land transfers have harmed rather than improved the welfare of the peasantry. It is also argued that land transfers bring about changes in the income of peasant households, labour mobility and rural societal structure, and thus disrupt the conventional village order, differentiating the peasantry and intensifying conflicts within villages (Guan 2004, Wu 2009). When land is transferred, those peasants without off-farm work are deprived of their incomes, and the peasants temporarily working in the city and those living in the village but no longer relying on the land no longer have a safety net. In sum, it is argued that land transfers have negatively affected the livelihoods of most peasant households (Sun 2012). Some scholars argue that idle land should be concentrated in the hands of the village collectives, instead of being sold off to capital interests. The concentration of land in the hands of outside capital will hinder the future return of migrant peasants, potentially throwing them into crisis (Pan 2009).

Many economists and public policy specialists focus their discussion on the facilitation of land transfer for modern agriculture and economic efficiency. They believe that land transfer is an inevitable trend in economic development and an effective way of promoting rural modernization (Yu 2013, Dang 2014). They argue that it leads peasant households with low marginal outputs to contract their lands to those with high marginal outputs, and that an increase in land transactions encourages capital investment in land and helps realize the value of land (Yao 2000). Both the land and the labour can be reallocated appropriately and the utility of both land suppliers and demanders is increased, bringing economic benefits to both (Cao et al. 2007). Land transfer also plays a major role in agricultural modernization and scaling up (Ma and Cui 2002), and so is seen as a pivotal aspect of rural reform, enabling the effective flow and optimal allocation of resources, thus contributing to the growth of the rural economy (Xiao and Zhang 2002). Land transfers also ease the tension of a low land-tiller ratio, and encourage a well-organized transfer of labour. Land transfers can also allow a more scientific approach to agriculture, and the scaling up of agriculture can enhance agricultural specialization, so that commoditization and efficiency are greatly enhanced. As the agricultural structure adjusts, it becomes possible to develop a more export-oriented agriculture (Yang 2009).

Under the 30 years farmland contract law, peasants still firmly hold the land contract rights,

although the land use/management rights are transferred to a third party (mostly agribusiness and commercial capital), believed to be capable of significantly increasing the productivity of the land and to farm more efficiently. Such practices, which respect the collective ownership and peasants' contract rights, have been lauded by some scholars. They trust that agribusiness and commercial capital will foster an expansion of agricultural production (and thereby drive modernization) without eliminating the benefits to hundreds of millions of peasants. They see this as a win/win situation, which will allow the rise of agrarian capitalism in China to proceed, without the mass displacement of peasants that has occurred in some other countries (Yao 2000; Zhang and Donaldson 2008, 2010).

THE STATE'S DRIVE FOR AGRICULTURAL MODERNIZATION

To understand issues for Chinese land and agriculture, one has to keep the fact of 'over population and land scarcity' in mind. By the end of 2012, the total population of China reached 1.35404 billion, including 642.22 million rural residents and 711.82 million urban citizens (National Bureau of Statistics 2013). By the end of the same year, the total arable land was 2.027 billion *mu* (equivalent to 135.1585 million ha) (Ministry of Land and Resources, 2014)⁶. This represents an average of less than 0.1 ha of arable land per capita, or 0.21 ha per rural inhabitant. The arable land per agricultural worker is only 0.29 ha, which is 25 per cent of the world average, 40 per cent of that in India, 7.7 per cent of that in Brazil, five per cent of that in Italy, around two per cent of that in France and the UK, 0.4 per cent of that in the USA, and around 0.25 per cent of that in Canada and in Australia (Shi and Yu 2001).

Given the shortage of arable land per capita and its relatively low quality, food security has always been a politically sensitive issue in China, and the growth of grain production has been an ongoing government priority supported by a variety of policy measures and tighter control over land use (Carter et al. 2012). In order to ensure food security through domestic production, the Chinese government is pursuing what it terms 'the strictest land management and farmland protection' (Liu

⁶ There has been much controversy over the availability of arable land. Since the 1990s, rapid industrialization and urbanization in China have been continuously appropriating farmland. According to data from the Ministry of Land and Resources (2003, 2009), the total arable land decreased from 1.88895 billion *mu* (125.93 million ha) in 2002 to 1.82574 billion *mu* (121.716 million ha) in 2008. This trend has thrown serious doubts on the accuracy of the data that was released in 2012.

and Cheng 2007). A new set of tightened regulations have been introduced and are being strictly implemented to control transfers of farmland to non-agricultural uses (Carter et al. 2012). As we saw above, China has set a threshold or 'red line' of maintaining at least 1.8 billion *mu* (120 million ha) of farmland until 2020 (Long et al. 2012). This 'red line' of farmland shall not be crossed beyond no matter how much urban expansion and other developments seek to appropriate farmland. The National Food Security and Long-term Planning Framework (2008-2020), approved by the State Council, stipulated that China would 'adopt the strictest measures to protect arable land to ensure that the reserve of national arable land is no less than 1.8 billion *mu*'.

Besides maintaining the 'red line' of farmland uncrossed, agriculture modernization or modern agriculture has been the key measure for securing national food security. This has been the official discourse, largely advocated and promoted by the state and repeatedly underscored in most of the government dossiers since 1949. In the Report on the Work of the Government delivered at the First Session of the Third National People's Congress on 21 December 1964, based on the proposal made by Mao Zedong, Premier Zhou Enlai declared the strategic objective of the government that 'China is determined to develop into a strong country with modern agriculture, modern industry, modern defense and modern science and technology in the near future.' Since then, these 'Four Modernizations' (*sihua*) have become the overall blueprint for the country's development. As early as the 1960s and early 1970s Benedict Stavis (1974) documented quite a lot of modern agricultural practices in China, including the use of modern inputs, modern machines, modern irrigation, modern technology, modern ideology and modern collective organization.

During the HRS period, The term 'modern agriculture' was officially coined in the Report to the 15th National Congress of the CPC in 1997, and in the document *'Decisions by the Central Committee of the Chinese Communist Party on Several Key Issues in Rural and Agricultural Works'* in 1998. The No. 1 Policy Document of the Central Government since 2006 has addressed modern agriculture every year, with a particular focus in 2013 with the document *'Suggestions on Promoting the Development of Modern Agriculture and the Vitality of Rural Areas'*. The National Modern Agricultural Development Plan (2011-2015) has emphasized that more attention should be paid to the coordinated and concerted development of agricultural modernization, industrialization and urbanization. It argues that China needs to equip agriculture with modern material conditions,

renovate agriculture with modern sciences and technologies, increase agricultural production with modern industrial systems, enhance agricultural production with modern business methods and guide its development with modern development concepts and a newly-born type of the peasantry. It strongly recommends exploring a path of agricultural modernization with Chinese features. The plan includes the construction of 300 national demonstration sites of modern agriculture, which aim for high levels of specialization, standardization and the scaling up and intensification of agricultural production.

The objectives of modern agriculture are to ensure food security and domestic self-reliance in grain provision, increase peasants' incomes, and create rural employment opportunities and to preserve ecology and the environment. These objectives shall be pursued through employing modern agricultural science and technology, modern industrial equipment, modern management approaches, and modern business concepts, all operated by modern knowledgeable farmers and modern entrepreneurs. The coordination of production and marketing, commerce, industry and agriculture shall be the market mechanism (Ke 2007; Zhou and Geng 2007).

Since the 'first leap' of dismantling peoples' communes and implementing the HRS, the central leadership has regarded modern agriculture as the 'second leap' and repeatedly stated that the goal was to make a transition from traditional to modern agriculture and from extensive to intensive operations, and from uncoordinated and small-scale operations to coordinated and large-scale operations. The central government defines modernized agriculture as commercialized, specialized, scaled-up, standardized and internationalized (Zhang and Donaldson 2008). Certain land-related institutional adjustments, including land transfers, are required in order to modernize agriculture (Liu and Yan 2012; Yuan and Lin 2013).

Scientific agriculture and scaled-up agriculture are seen as integral components of modern agriculture. Therefore, agricultural science and technology is highly emphasized by almost all policies related to agricultural and rural development. The application of modern science and technology was already strongly underlined by the central government in the collectivization period (Stavis 1974). Nowadays, agricultural science, technology and research are widely recognized as the essential basis for modern agricultural transition (Yuan and Lin 2013). The 2012 No. 1 Policy Document of the Central Government laid great stress on the development of agricultural science

and technology to ensure domestic provision of grain production. The National Food Security and Long-term Planning Framework (2008-2020), anticipates that the future increases in yields of agricultural production will largely rely on the successful application of agricultural science and technology. The plan suggests that China supports and develops research in a number of key agricultural technologies, so as to achieve breakthroughs in grain yields.

As we discussed above, the state is particularly keen on scaled-up agriculture, both in the collective era and in the more recent years since the HRS. Scaled up agriculture is considered to be the epitome of agricultural modernization, and the millions of small holding producers are considered to be unable to respond to fluctuating markets, unable to compete effectively or respond to changes in domestic demand, unable to withstand pressure from international markets (especially after China's entry into the WTO), find it difficult to access markets and continue to have incomes that lag behind the rest of the economy (Guo et al. 2007). As such they need to be transformed into specialized, commercialized, vertically integrated and larger-scale agricultural units that can be competitive in export markets (Zhang and Donaldson 2008). Scaling up almost automatically implies that the small holdings of land plots will need to be transferred and concentrated (Zhang et al. 2002b). The 2013 No. 1 Policy Document of the Central Government suggested encouraging farming households to adopt advanced and suitable techniques and modern production factors that are in accordance with the requirements of scaling up, specialization and standardization, to catalyze transitions in agricultural production and management, to support land transfers to large specialized farms, family farms and peasants' cooperatives.

Moreover, the 2013 No. 1 Policy Document also officially stated the government's intent to 'encourage and guide urban commercial capital to invest in farming and livestock enterprises in rural areas'. Therefore, in recent years external capital investments have been directly made in agriculture and farming, with multiple forms of agricultural operations encouraged, such as large-holders, family farms and peasants' cooperatives. The 2013 No.1 Policy Document explicitly indicated that 'specialized large-holders and family farms should be supported and promoted through favourable policy and legal framework and subsidies and bonuses'. Particularly, the Ministry of Agriculture sees a family farm as 'a new type of operative entity in agriculture mainly based on family labours to pursue large scaled, intensified and commodified agricultural production

and operation' (Wang 2014). The family farm is seen as a legal entity, a business enterprise with a focus on the market and modernization, which in terms of the composition of production factors, labour attributes and products is very close to an agribusiness (Kong and Gao 2013; Wu 2013). In the discussion on family farms, scale is often a focal issue (Yuan 2013). In a national survey conducted by the Ministry of Agriculture (2013), one of the criteria of family farm is that the size of farmland (with a contract period of more than 5 years) in grain production should be over 50 *mu* (double cropping) or over 100 *mu* (single cropping). Clearly, the development of the family farm would demand land transfers from ordinary peasant households to such family farm owners (Kong and Gao 2013).

CONCLUSION AND DISCUSSION

The evolution of land and agriculture in China has been closely connected to the overall framework of the country's development paradigm and the associated governance politics, which have a strong focus on the pursuit of accumulation, industrialization and modernization. As one of the Four Modernizations, agricultural modernization has been always the national development goal. It primarily involves specialization, mechanization, scaling-up and technocracy. The persistent pursuit of agricultural modernization is distinctively reflected in the official narratives and various policies around land institutions and agricultural production. The path of agricultural modernization has not been an easy one, often encountering civil and international challenges. However, as a social actor, the authoritarian Chinese state has mobilized itself to respond to these challenges, while never abandoning the pursuit of agricultural modernization.

After 1949, communist China first mobilized peasants' mass power against their previous oppressors and quickly confiscated the land from landlords. This land reform served as a foundation for the subsequent collectivization: shortly after the land reform, individual small scale family-based land holdings were collectivized and all land came to belong to the state or a vaguely defined collective, which in reality was an extension or incarnation of the state. During this collectivization period, a large scale Green Revolution, based on a combination of high-yielding seeds, irrigation and chemical fertilizers, was launched (Kerkvliet and Selden 1998). It is obvious that the goal of land reform and collectivization was to nationalize farmland from the previous landlords step-by-

step, so that agricultural scaled-up operations could take place and agricultural sciences and technologies could be applied. This was the initial attempt at agricultural modernization, with the aim of contributing to primitive accumulation for the country's economic development and industrialization. Although peasants were relatively impoverished, the modernization achievements in agricultural and other sectors (e.g., industrial and infrastructure base, agricultural technologies, particularly the irrigation and soil improvement) in the collectivization era had laid a solid foundation for the economic take-off and agricultural and rural development in the HRS era since 1978. Without the former, the latter would not have succeeded as far as it has.

Although the state approved the grassroots-led innovation of HRS and agriculture returned to individual farming, the HRS never left any room for private land ownership. Moreover, since the outset of HRS, there has been support for potential land transfer, which has been always seen as a way of achieving scaling up and promoting a technocratic, mechanized, specialized and standardized agriculture. Peasant and peasant agriculture have never been the goal or ideal of the nation's modernization project, more ways of living and farming that should be abolished or transformed. Therefore, HRS was a responsive measure of the Chinese state to the problems and difficulties of national economy and peasants' livelihood in the late 1970s, while the pursuit of agricultural modernization has never been suspended. Following HRS, challenges emerged and innovative practices were quickly trialed, many of which are further attempts to scale up and modernize agricultural operations. For instance, the serious fragmentation of farmland plots and peasants' heavy burdens made agriculture less or non-remunerative, which further hampered investment in land and agriculture. The feminization and greying of agriculture that posed the question of 'who will till the land', together with the decline of farmland resulting from urban land developments, have brought huge concerns on agricultural production and national food security. All these challenges increased the urgency for larger land holders, in order that capital investment can be attracted and agriculture modernized. For instance, a study shows that a rise in the proportion of nonagricultural income or the migration rate increases the size of self-cultivated land significantly among relatively large farms (Wang et al. 2014). Development in recent years shows that land transfer has speeded up agricultural modernization.

As part of China's pursuit of achieving agricultural modernization, productivity and efficiency

have always been the focus of any changes within land and agricultural institutions, in order to create the basis for capital accumulation. Since 1949 there has been a clear drive for capital accumulation from agricultural sector to finance China's industrialization and urbanization. During the first 30 years of the collectivization period this took the form of socialist primitive accumulation and was based on the nationalization of the key factors of production, a centrally planned system, state-led development and state-directed accumulation. In the subsequent 30 years of de-collectivization it was based on the commodification of the key factors of production and a decentralized market system (Sargeson 2013). According to Henry Bernstein (2010), the primitive accumulation in the commune period, although labeled as 'socialist', was typically 'non-market' and 'extra-economically coercive', whereas in the HRS period, it has been characterized by the market-derived compulsion of economic forces. The latter has led to a gradual process of (semi-)proletarianization. For instance, the relaxation of household registration system and the promotion of rural-urban migration have greatly contributed to industrialization and urbanization. However, this has generated millions of semi-proletarianized peasant workers (Pun and Lu 2010). In the wake of the recent land transfers and agricultural modernization, a second wave of semi-proletarianization has been taking place: the proletarianization of the left-behind women and elderly, previously engaged in family-based individual farming, who have now become casual workers on land for which they have contract rights but where use rights have been transferred to external capital.

The institutional transitions of land and agriculture clearly demonstrate that China's development has been continuously urban biased and that agriculture and the countryside have been continuously supporting industry and the urban in various ways. In the commune period, an estimation of 600-900 billion *yuan* was siphoned from agriculture to industry between 1953 and 1978. In the HRS period, (between 1979 and 1994) the state extracted 150 million *yuan* from the rural sector to support industrial and urban development (Cheng 2004). Moreover, the massive rural urban migration is also a form of human resource extraction from the countryside to the cities. The countryside has also been continuously supplying many physical resources (such as minerals, sands etc.) to the cities for urban construction. Taking all this into consideration, the Chinese countryside is an open conduit, nourishing the cities. The very heavy tax and levies on peasants in the late 1990s, the land '*Balanced Increase and Decrease of Farmland*' policy in the mid-2000s, as well as the

recent penetration of capital into agriculture all show that the capital accumulation for industrial and urban development comes at the price of depleting agriculture and hollowing out the countryside.

In conclusion it is worth considering whether agrarian capitalism has risen in China or whether peasant agriculture still persists. Do China's *sannong* policies prioritize agricultural capitalization or peasants' livelihood? In reality, the former overwhelmingly takes priority but at the same time, there has been more and more resistance from the latter. There is no country in the world that can provide a roadmap for China's development trajectory, since China has so many unique characteristics: the very low ratio of land to people, the huge population (increasingly urbanized), the 166 million peasant workers in the cities and the 158 million children, women and elderly left behind in the countryside. Capitalist development and the market system have triumphed in many sectors and areas of Chinese life, including agriculture and the countryside. However, it is precisely at this moment, that we should probably pay more heed to Karl Polanyi's warning, that 'leaving the fate of soil and people to the market would be tantamount to annihilating them' (Polanyi 1944).

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