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CONCEPTS AND REALITIES OF FAMILY FARMING IN ASIA AND THE PACIFIC

Jingzhong Ye¹ and Lu Pan²

The Asia and the Pacific region has the largest number of family farms in the world. It is home to 60 per cent of the world's population and to 74 per cent of the world's family farmers, with China alone representing 35 per cent and India 24 per cent of the estimated 570 million farms worldwide (Lowder et al. 2014). Though generally working in small plots of less than 2 hectares on average, family farmers in Asia and the Pacific produce 80 per cent of the total food needed to ensure food security in the region (AFA 2014). It is undeniable that family farming has played a central role in the socio-economic development and well-being of the entire population of Asia and the Pacific. As the reports for the Food and Agriculture Organization of the United Nations (FAO) Regional Conference for Asia and the Pacific stated, "family farming is essential for the sustainability of agricultural, forestry and fishery production systems... [family farms] are the context in which important decisions on natural resource management are made. They hold the key to achieving food security not only for themselves, but also for the increasingly large number of families that have left the farm sector for employment in other occupations" (FAO 2013).

The recognition of the contribution of family farming to social, economic and ecological sustainability was demonstrated by the celebration of the International Year of Family Farming (IYFF) in 2014. To facilitate academic discussion and statistical application, FAO has proposed broad principles that define family farming (which includes all family-based agricultural activities) as "a means of organizing agricultural, forestry, fisheries, pastoral and aquaculture production which is managed and operated by a family and predominantly reliant on family capital and labour, including both women's and men's. The family and the farm are linked, co-evolve and combine economic, environmental, social and cultural functions" (ibid.).

In almost all statistical and operational contexts, the family farm is mainly reduced to a unit of agricultural production with certain indicators that can be easily classified to fit policy and intervention packages for various purposes. However, as a multi-layered social phenomenon, family farming is too complicated and diverse across different regions and countries to be defined in a simple, quantifiable way. Rather than trying to reach such a simplified notion, this paper will first demonstrate the 'impossibility' of defining family farming in Asia and the Pacific without taking into account the historical and current cultural contexts in which it is rooted. When the complexity of family farming and its different situations under changing externalities in this region is explored, its strengths, merits and challenges will become clear.

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1 UNDERSTANDING FAMILY FARMING IN ASIA AND THE PACIFIC: A HISTORICAL NOTE

1.1 FAMILY FARMING AS A MEANS OF ORGANISATION OF PRODUCTION IN AGRICULTURE

Family farming is, above all, a form of organisation of production and a land–labour institution in agriculture. For Asia and the Pacific, the dominance of family farming in agriculture is closely linked to and rooted in the geographically diverse history of the region. The age of ample land presumably ended for most of Asia’s agricultural population between 500 BC and 100 AD, bringing about a series of ‘blue revolutions’ in water technology, spreading irrigation in the Yellow River and Yangtze basins, Mesopotamia, Egypt, much of India, and Sri Lanka (Bray 1986). In ancient countries such as China and India, irrigation-intensive agriculture became the primary mode of subsistence. This mode of agricultural production required small social groupings such as families or villages to be the basic unit of society. Their historical development, therefore, differs from some Western societies which consisted initially of hunter-gatherers and herdsman, with the individual as the basic social unit.

In China, the Xia dynasty (ca. 2070 BC to ca. 1600 BC), which emerged more than 4000 years ago as the first dynasty in China, was a result of the development of the irrigation system preventing the flooding of the Yellow River. It was based on irrigation, agriculture, small-scale peasantry, and village communities that Chinese civilisation gradually developed. Family-based farming and the village community as the basic organisational unit of rural life comprised the cornerstone for Chinese society in history (Houtart and Wen 2013). The Chinese thinker Liang Qichao (2012) observed that Europe was based on urban governance, whereas “China is based on village governance”, which comprises two main factors: small peasantry and village communities. He argued that peasantry has been at the heart of China’s society for at least 2000 years. The centrality of the family also shows up in the agricultural history of Japan, where its dominant rice farming was performed in hillside fields. To overcome harsh natural conditions and perform resource management, Japanese rice farming required close social cooperation and thus developed into a strong tradition of family farming.

Worldwide, family farms generally operate on relatively small areas of agricultural land; they represent 84 per cent of the farms that are smaller than 2 hectares, and operate on about 12 per cent of agricultural land (Lowder et al. 2014). This is especially the case for Asia and the Pacific, where a tense man–land ratio has existed through history. As Nagayets (2005) synthesised, of the world’s 500 million small farms of less than 2 hectares, 87 per cent are located in Asia and Pacific, 8 per cent in Africa, 4 per cent in Europe, and only 1 per cent in America. It is partly for this reason that very small farms in both China and India were included in the census as family farms (Lowder et al. 2014).

Unlike the big farm sizes in North America and Australia, and the comparatively mid-size farms in Europe and central Asia, farming in Asian countries—especially East Asian countries—can be characterised as smallholding agriculture. Small-scale family farming came about, in the region, as an adaptation to the high population density and relatively scarce agricultural land resources (Zhang 2011). Small-scale family farming has also developed specific productive features, such as high labour input, intensive cultivation and subsistence economy. The advantages of a family-based organisation of agricultural production as compared to production of inorganic substances have been expanded on by many scholars (Soda 2003).

To cope with environment shifts (such as flooding) and scarce resources, farmers have also developed a range of philosophical principles that help them maximise their output while treating nature with respect.

In China, for example, peasants started to use organic fertiliser as early as 1000 BC. They made use of rainwater and weeds to compose manure³ and applied different kinds of manure (from different animals) to specific qualities of soil.⁴ In this traditional farming system, peasants in East Asia gradually formed and internalised a unique conception of agriculture which could be characterised as *ying shi, qu yi, shou ze* and *he xie*, which means the peasants need to: (1) comply with the seasons and arrange their production and life according to natural rhythms; (2) plant according to the condition of the land; (3) obey certain norms and regulations (e.g. harmony, morality and ceremony); and (4) achieve humanity through harmonious symbiosis with nature (Peng 2011).

Having converted these principles into concrete farming practices, the diligent peasants generally managed to have adequate food and clothing in the absence of massive natural disasters, warfare or over-extraction by the ruling class. Limitations on productive capacity during that time facilitated an ethos of modest food consumption for the whole of society (Zhang 2011). Due to its efficiency in organising agricultural production in ancient, harsh times, small-scale family farming was also adopted as the preferred institutional choice for the State to maximise government financing and counteract socio-economic risks in society. In histories of East Asian countries, to secure the reproduction of family farming, land concentration and large-scale operations were resisted, for peasants to fully utilise the land. Peasant agriculture and family farming have supported the orderly operation of traditional agrarian society, and such modes of production could never be considered simply backwards or antiquated (Yin 2003).

1.2 FAMILY FARMING AS CULTURAL NORM

Agricultural production in the vulnerable environments of Asian countries brought about intimate cooperation among primary and secondary social groups such as families and village communities. Thus, family farming became an essential part of folk custom and the rural culture of Asian societies from the very start. Alongside animal husbandry and planting, rural families also assumed strategic functions in politics, culture and religion due to their fundamental role in both production and consumption. Rural societies, in turn, formulated certain customs and norms (such as the kinship system) to reinforce the capacity of the family to engage in sustainable farming. This cultural aspect of family farming explains why research into Asian rural societies (e.g. Japan and China) devotes so much attention to the 'family' aspect. Family farming is seen as the comprehensive outcome of land legacy, ancestral rules, household rights to common agricultural resources and strong social bonds interwoven by individual families (Soda 2003, 149).

The cultural significance of the family as farming unit also resides in its linkage with the rural community. As Shanin (1971) argued, the understanding of peasantry needs to relate to the lifestyle of rural communities, because that is the context in which peasants realise self-sufficiency, which would have been impossible for the single family. In this sense, family farming constitutes the cornerstone of rural societies in Asian countries. Its socio-economic sustainability throughout history is greatly indebted to the grassroots networks, village rationality and community organisations in which it is embedded. As a complex of different

social relations—kinship (blood), neighbourhood (locality), and agricultural fellows (farmers)—village communities usually embody a specific rationality that stresses resource sharing, income parity, cooperative solidarity and social justice in coping with crises.

Although it is true that the village elite and large landholders were not always moral, and human relations in villages were frequently far from ideal, these indigenous cultural features originated as a response to extreme constraints and limited natural resources during the history of irrigated agriculture in Asia (Houtart and Wen 2013, 24). Enriched by social dynamics in farming lives, rural societies in Asian countries have provided a broad field for peasant and rural studies, ranging from the articulation of China's earth-bond and peasants' life along the Yangzi River by Chinese scholar Fei Xiaotong, to James Scott's argument of peasants' subsistence ethics and moral economy in Southeast Asia, which have shown that social norms and cultural repertoires have strongly guided the many practices in rural communities and peasant farms.

Subsistence ethics which respect the subsistent rights of each peasant family (Scott 2001) still apply to the rural communities of many Asian countries. Even today, many communities still maintain (or have re-developed) systems of mutual support, cooperation and reciprocity to deal with risks in agricultural activities.

In India, a type of mutual support is promoted by the Self-Employed Women's Association (SEWA), a trade union based in the state of Gujarat in India, which has used banks for grain, seeds, fodder and tools to help build food security. In some cases, grain banks have been combined with other activities to build the equivalent of public distribution systems. Many community-based water delivery systems, which serve one third or more of the total irrigated area, have been developed in mountainous or hilly territory, especially in the Himalayan region, China, the Lao People's Democratic Republic, Japan, the Philippines and Thailand. In the Ilocos provinces of the northern Philippines, for example, irrigation systems are run by small communities that have operated successfully for centuries. In Indonesia, rice farmers in Bali have irrigation systems coordinated through temples, using common planting cycles based on a ritual calendar. Through the practice of subsistence ethics, resilient rural communities have improved the food security and livelihoods of individual families (ESCAP 2009). Consequently, the idea of family farming cannot be separated from its rural roots and context.

1.3 FAMILY FARMING AS AN INSTITUTIONAL ARRANGEMENT

Historically, family-based farming has had incomparable advantages in organising agricultural activities. It ensures autonomy and independence, which can greatly inspire the industriousness of farmers. It provides occupational stability based on farmland and housing. Despite the differences in size and extent of commodification, family farming has been a dominant force in agricultural production in Asian countries (Soda 2003, 149). It is for this reason that many Asian countries formally institutionalised the family as the fundamental farming unit through land reform and specific legislation. In Japan and Korea, for instance, after the Second World War, the family production unit was strengthened through land reform to solve the imperative for food supply and promote employment and social stability. Immediately after the Second World War, drastic agricultural land reform was implemented in Japan. The *Law Concerning the Special Measures for the Establishment of Landed Farmers* and the *Amendment Bill of Farmland Adjustment Law* were formulated and implemented in 1946. Land reform in Japan demolished a class structure based on landholding. Landlords no longer

reigned supreme, and rural society was completely restructured. Land ownership was transferred from landlords to tillers of the soil, and small-scale tenant farmers became small-scale owner-cultivators, with no apparent change in farm size. By 1950, the Japanese government had acquired 1.9 million *chōbu*⁵ units of tenant farmland from landlords and then transferred them to 84 per cent of the tenant peasants. Through land reform, almost all the peasants became 'landed farmers', who owned the land and could organise production independently (Kawagoe 1999). Granting land ownership to farmers and promoting cultivation by self-employed farmers thus became primary principles in Japanese agriculture. In Japan's *Agricultural Land Law* of 1952, the first article declared that "the most appropriate ownership of farmland is by its cultivators".

In China, implementation of land reform was completed after 1949, and all land was equally distributed among peasants who obtained usage rights according to the number of people in their family. Periodic redistribution of land use rights by village collectives guaranteed the rights of those who had not transferred their residence away from the village. Such a kind of multi-functional right naturally created a rationality that helped to absorb the cost of external risks through mechanisms within the villages (Houtart and Wen 2013). This was soon followed by government efforts to develop large, collective operations, and by 1956 most of China's agricultural production was done on a collective basis. However, the collective farms drew on many organisational features of the family farms that they brought together. Some two decades later, the family farms, re-created by the division of communal land, regained independence in their decision-making, which has grown in subsequent years (Brookfield 2008). In 1978, the government began to decentralise agricultural production from the commune system to individual and farm households. By 1984, more than 99 percent of production units had adopted the Household Production Responsibility System (HRS). Under the HRS, rural households do not have ownership of the land allocated to them but, rather, have land use rights and freedom of decision-making on major production and marketing activities (Fan and Chan-Kang 2003). The contract period for land allocation was extended by 30 years when the first 30-year contract period expired in 2008. Similarly, the Communist Party of Vietnam implemented a household allotment reform in 1988 to allocate agricultural land to farmer households. Farmer households were entitled to own, manage and use farmlands.

Land reform and institutionalised family farming have contributed significantly to the reduction of mass poverty, especially where incentives and technical prospects for post-reform family farms are in place (IFAD 2001). For countries where land reform was not implemented thoroughly, such as India, family farming has not shown a strong contribution to economic development and poverty alleviation. Landlessness and the concentration of land in the hands of a few is a longstanding concern in rural India. With a resource condition that is similar to China, India has a much higher proportion (45 per cent in 2000) of landless hired labour in agriculture than China (3 per cent) (Huang 2012a).

According to the *India Rural Development Report* of 1992, 43 per cent of the country's rural population was absolutely or nearly landless. About 77 per cent of Dalits and 90 per cent of Adivasi (indigenous people) are either 'absolutely landless' (own no land) or 'merely landless' (PACS 2007). As rural populations grow, cultivated plots are becoming smaller per capita and per household. In India, the average landholding size fell from 2.6 hectares (ha) in 1960 to 1.4 ha in 2000 and continues to decline (Houtart and Wen 2013, 168). The consequence of the highly agrarian proletarianisation is intensified poverty. People living under the USD1.25/day poverty line account for 42 per cent of the population of India, compared to 15.9 per cent in

China (World Bank 2008). Regions with mass poverty need to get their large, low-employment landholdings to shift towards not-too-unequal family farms (Lipton 2005).

2 VITALITY AND SIGNIFICANCE OF FAMILY FARMING: EMPIRICAL EVIDENCE

The dominant role of family farming in Asian agriculture is a constant feature across time and space in this region. Family farms constituted about 90 per cent of farming units in northern China in the 1930s (Huang 2004), and in 2006 family farming again accounted for nearly 97 per cent of all farming units, overwhelmingly surpassing large-scale farms with hired labour (Huang 2012a). From the past to the present, the basic and primary operative unit of agriculture in the vast Asian societies has always been the family. Producing 80 per cent of the total food needed to ensure the region's food security (FAO 2013), family farming has powerfully demonstrated its significance and competence in feeding people in Asia and the Pacific. It should be noted that the debate and evaluation criteria of family farming mostly focus on economic aspects, such as productivity and efficiency.

In the 1960s, it was argued that small-scale family farms were efficient due to their full utilisation of family-owned resources—particularly family labour—and low production monitoring costs. In the 1970s and 1980s, small farms were considered an obstacle as many Asian countries rapidly moved towards industrialisation and urbanisation. Industrialisation demanded vast amounts of labour from the rural sector and made large-scale farming possible due to the application of machinery and chemical inputs. In short, small family farms seemed uneconomic in the age of industrialisation. Since the 1990s, small farms (especially in Europe) have been showing comparative advantages in the production of high-value agricultural commodities and in securing less negative externalities in environmental aspects than large-scale farms with extensive farming practices (Fan and Chan-Kang 2003). It is safe to conclude that discussion on the relationship between small family farms and large-scale, capitalist farms never stops and is often grounded in economic arguments. Also, the academic proponents of family farming usually tried to explain the success of family farming through the economics of its organising process, ranging from the labour–consumption balance and self-exploitation of family farmers and the profit maximisation pursuit of peasants to the low transaction costs and flexible working hours in family farming (see, for example, Chayanov 1996 [1925]; Schultz 1999 [1964]). Some also attributed the revival and widespread existence of family farming to the unique features of agriculture, because this form of production could better suit the natural features of agriculture and its demand for labour than capitalist farming does (see, for example, Apedaile and Zhang 1989; Bernstein 2001; Hayami and Ruttan 2000). In brief, far from being substituted by large-scale capitalist farms as both neoclassical economics and Marxist theories assumed, family farming has adapted well and thrives in modern times through its diverse modalities in different societies.

Theories and practices have shown the advantages of family farming in organising agricultural production and guaranteeing food security for people in Asia and the Pacific. However, the vitality and significance of family farming should never be confined to economic arguments only. The multifunctionality of agriculture has been increasingly recognised since the first emergence of the theory in the 1990s. It is now commonly acknowledged that “beyond its primary function of producing food and fibre, agricultural activity can also

shape the landscape, provide environmental benefits such as land conservation, the sustainable management of renewable natural resources and the preservation of biodiversity, and contribute to the socio-economic viability of many rural areas" (Maier and Shobayashi 2001). Family farming is the most important and appropriate operator in agriculture to realise the multi-layered functions in economic, social and environmental synergy. Indeed, the polyvalence of family farming is inherent to Asian history. For this region, the contribution of family farming particularly centres on the maintenance of livelihood, agroecological protection and rural–urban development.

2.1 LIVELIHOOD MAINTENANCE AND SELF-SUFFICIENCY

Historically, agriculture has played the role of prime engine of growth in the early stages of development. As Lipton (2004) argues, "Europe in 1740–1900 and Asia since 1960 show that when urban industrialization offers major prospects for employment (and poverty reduction), it is fairly late in an already successful, agriculture-led development process." At the same time, however, family farmers are faced with many challenges that threaten their very existence. Agriculture is increasingly becoming a non-remunerative activity for them due to various reasons, including low profitability, increased cost of cultivation, poor access to services, market fluctuations and many other social, political, technical, economic and climatic factors, most of which are beyond their control. Hunger and malnutrition are omnipresent in Asia, especially among family farmers. Small family farmers in South and East Asia and sub-Saharan Africa represent over 92 per cent of the world's extremely poor population (World Bank 2004). However, family farming by itself would never necessarily induce poverty. With positive public investment and policy support, family farming is able to provide a decent income for rural people. In Japan, for instance, the average income for farming households in 2012 was about USD58,500, of which a significant proportion (31.1 per cent) came from agricultural activities.⁶

The success of family farming lies not in 'specialisation' or profit maximisation but in practising farming to meet diverse household needs, rather than responding to market opportunities alone. To satisfy a family's various livelihood needs (sufficient and balanced diet, clothing, cash income etc.), small family farms usually adopt a scope economy (combining livestock, grain crops, cash crops, fodder crops, a vegetable garden, forestry etc.), rather than a scale economy used in large industrial farms (Huang 2012b). Small farms are more productive than large monocropping farms per unit of cultivated land because they combine different outputs and are much more efficient in terms of resource utilisation. At the household level, family farms usually apply integrated, diversified and location-specific farming systems to meet their multiple needs. In China, farmers have developed integrated agriculture centred on fish ponds, combined with cultivating silkworms, along with raising poultry, ducks and other animals—a system that uses almost all waste as nutrient resources. Farmers in Japan have similarly made use of complex ecosystems—for example, by rearing ducks in rice fields (ESCAP 2009). Small farm families in India, Nepal and Bangladesh also focus on increasing farm productivity by augmenting diversification and integrating resource flows. These examples highlight the multifunctionality of a family farm in its two dimensions—sustaining a productive farm as well as meeting diverse family needs, especially food, income and nutrition (LEISA 2013). It is believed that family farming may well address rural poverty and vulnerability, especially when there is collective action, improved access to resources and an adequate policy framework (LEISA 2014).

The contribution of family farming to meeting household food, nutrition and livelihood needs is often underestimated or overlooked in national economy statistics, as most of the farming outputs are destined for self-consumption rather than trading. Family farming, therefore, is an important practice for the non-commodified reproduction of households and agriculture. It is for this reason that farming households can retain a certain level of autonomy in the face of hostile external conditions, such as fluctuating markets, rising prices of production inputs or commodified means of subsistence. Even allowing for such underestimation and the decreasing profitability of agriculture, family farming in general remains an important source of income for rural households (see Table 1).

TABLE 1

Composition of net income for rural residents in China (Yuan/capita)

Index	Year			
	1990	1995	2000	2009
Net income	686.3	1577.7	2253.4	5153.2
1. Wage income	138.8	353.7	702.3	2061.3
2. Income from household operation	518.6	1125.8	1427.3	2526.8
2.1. Agriculture (cultivation, forestry, pastoral and fishery)	456.0	956.5	1090.7	1988.2
2.2. Secondary industry (manufacture, construction)	21.3	48.2	99.4	164.5
2.3. Tertiary industry	41.2	121.2	237.2	374.1
3. Property income and transfer income	29.0	98.3	123.9	565.1

Source: Rural Statistical Yearbook of China (2010).

An inevitable trend in industrialising Asian countries is that rural residents increasingly rely on non-farm cash income (especially from urban migration) to satisfy various family needs, and family farming takes on a secondary or supplementary role in generating cash income. Family farming, as a livelihood, cannot be perceived separately from the pluriactive role of rural households. It is the tight integration of farming and holding off-farm jobs that sustains the livelihoods of millions of family farmers and the prosperity of many rural societies in the region. The economic efficiency of migrant labour is not only due to their identity as mobile labour, but also their identity as rural household members (Huang 2012a), whereby their livelihood is sustained by the interaction and complementarity of the two roles. Accordingly, family farming activities are also arranged flexibly (e.g. regarding the division of labour, planting structure, application of monetary input and mobilisation of social networks) to maintain the livelihood. This explains the robust vitality of a vast number of farming families in modern societies and the essence of 'family' in agricultural operations—the family/household always comes first.

2.2 BIODIVERSITY AND AGROECOLOGICAL SUSTAINABILITY

While small-scale farms may draw on improved varieties of staple crops and/or grow monocultures under high-input, intensified systems of cultivation, this is not the norm. Most small farmers practise 'low-resource' agriculture, producing the majority of grains, almost all root, tuber and plantain crops and the majority of legumes consumed in the region. In addition, family farmers in Asia and the Pacific often develop farming systems and practices

to adapt to different local conditions, marginal land endowments and climatic variability. Diversification is, therefore, an important farm strategy for managing production risk in small farming systems. The diversity of landraces and species cultivated or gathered from the wild, for consumption or sold in local markets, forms the foundation of family farming in Asia and other developing regions. Likewise, the diversity of crop varieties and species, as well as the farmers' intimate knowledge of landscape, biota and ecological processes, allows them to optimise outputs from both high-potential and marginal soils and from numerous micro-environments (Johns et al. 2013). Projects in 57 countries show that small farmers using low-cost, sustainable and diversity-enhancing technologies have increased average crop yields by 79 per cent since the early 1990s (Pretty et al. 2006).

The biodiversity of family farming and the traditional agroecological systems that many family farms maintain have extraordinary significance for this region characterised by scarce resources and vulnerability to various climatic disasters. In Japan, there are sloping fields among the farmlands that are prone to flood and the flow of debris under typhoons. The slanting topography also speeds up the loss of river and underground water to the ocean. The cultivation of rice by family farmers helps lower the slopes and conserve the water, which decreases risks of natural disasters. In Vietnam, farmers in the northern mountainous areas have developed a unique cultivation system in a difficult environment—for example, the Whit H'Mong people devised 'rock pocket' agriculture, in which they rearrange rocks on the slopes to form walls that protect the small patches of soil inside them. The people make the most out of rock pockets; they gather scattered rocks and arrange them in an interlocking fashion to conserve soil moisture and fertility, or they arrange them to make terraced fields. By rearranging scattered rocks, the farmers can significantly reduce soil erosion, and thus they have been able to intensively cultivate the high, mountainous regions over a considerable period of time (Tran 2003).

Along with public awareness of the negative environmental effects and land degradation problems of large-scale industrial farming since the 1990s, the contribution of indigenous and peasant agriculture to food security in the midst of climate change and economic and energy crises has been increasingly recognised. Thus the concepts of food sovereignty and agroecological production have attracted considerable attention over the last two decades (Altieri and Toledo 2005). Family farmers are necessarily equal to practitioners of traditional agriculture. Many family farms also bring about ecological problems due to their high usage of agricultural chemicals and tendency for fast farming due to labour shortages. However, family farming can preserve nature and biodiversity better than agribusinesses, provided there is decent support and respect for traditional peasant agriculture.

2.3 RURAL–URBAN DEVELOPMENT

Family farmers also help build stronger rural communities, since they are more involved in their local economy. Small farms not only help reduce unemployment but also help maintain a vibrant local economy that can build stronger rural communities (AFA 2014). Rural development practices currently emerging in Asian societies are not promoted through top-down policy interventions but largely driven by grassroots activities and innovations of family farmers. In China, rural development aims to defend and develop peasant farming and small-scale family farming by sustaining and strengthening heterogeneous agricultural activities (Ye et al. 2010). In a very clear sense, a series of new decentralised markets, or nested markets

(van der Ploeg and Ye 2010), is arising in the countryside as a result of the strength of family farmers' activities and initiatives. Several types of nested markets could be identified in China:

- the market for organic produce (which currently includes more than 500 different products, many of which are exported; in 2006 the export value reached EUR320 million, while domestic sales totalled EUR400 million);
- the Green Food market that channels eco-certified food within China (total market sales currently equal EUR19 billion per year);
- the market for eco-agriculture that strongly builds on ancient agricultural traditions;
- the markets associated with the 'One Village, One Product' movement (these markets focus mostly on typical regional or local products, such as high-quality tofu or handpicked organic apples; local processing and local restaurants are often important cornerstones of these markets);
- the markets for agro-tourism (there are different types of agro-tourism in China; together they attracted 335 million tourists in 2007 and generate an income of around EUR5 billion per year) (Ye et al. 2010); and
- a plethora of new farmers' markets.

The emergence of farmers' markets in the last decade in China is particularly representative of the dynamics and importance of small-scale family farming. Operating under different terms (such as community-supported agriculture, farmers' markets, short-chain agriculture, nested markets etc.), this kind of market aims to strengthen ecological and traditional agriculture and promote the direct connection between rural producers and urban consumers. Farmers' markets are usually developed on the basis of rural–urban partnership. It was roughly estimated that up to 2006 there were about 300 farmers' markets and 80 organisations for community-supported agriculture in over 30 provinces and municipalities of China. These markets are mostly initiated by peasants, peasants' cooperatives, urban consumers and some by universities and research institutes, governments and/or non-governmental organisations (NGOs).⁷ Together with the other forms of markets discussed above, these nested markets help bypass the dual squeeze (for both producers and consumers) on the production and consumption of food. In doing so, not only can agricultural sustainability and incomes for family farmers be improved, but the harmonious relations between agriculture and industry, producer and consumer, the rural and the urban are actively strengthened.

Along with the growth of nested markets in China is the emergence of the term *xin nong ren* ('new farming people') to describe those people who are dedicated to ecological agriculture and the social responsibility of food safety.⁸ This group is not confined to the rural population alone, but actually includes a great number of urban youth, especially university graduates with rural roots who are making their way back to agriculture. The defence of family farming in China is beginning to translate into diversified rural development practices (such as agro-tourism and new markets), improved nutrition and food safety for rural and urban populations, and, above all, shared values regarding the beauty of agriculture and the countryside.

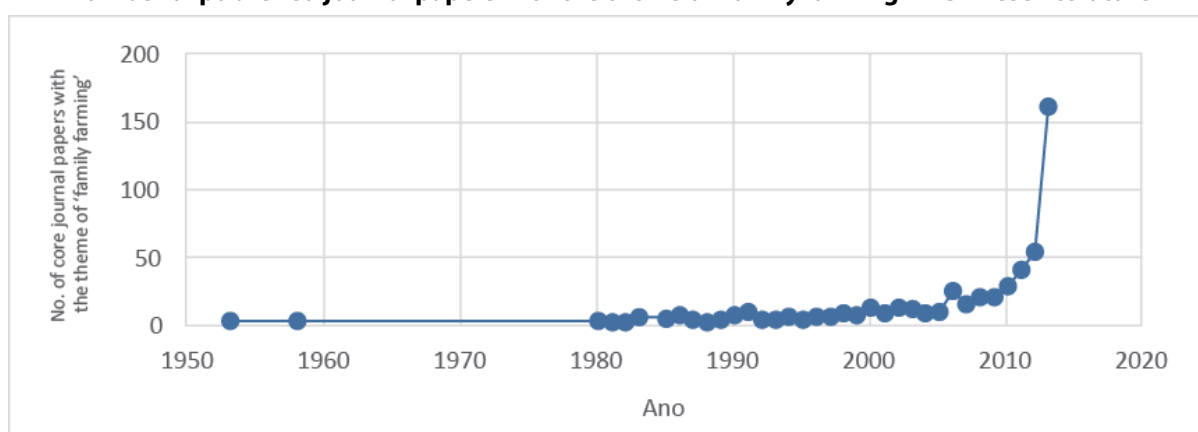
3 CONCEPTUALISING FAMILY FARMING

The FAO *Outcome Report of the Regional Dialogue on Family Farming* recognises that family farming in Asia and the Pacific is highly diverse, making it difficult to come up with a simple definition. Spanning from full-time farming by family members with the support of wage labour, as in China, to small-scale and subsistence farmers, as in Pakistan and the Pacific Islands, family farming can be characterised, at any rate, as family-based and small-scale. Defining family farming implies an ongoing process of increased understanding of situations at the local and national levels (FAO 2013). Home to 70 per cent of family farmers in the world, family farming in Asia is a self-evident phenomenon. At the same time, there is a rich literature articulating the history and features of family farming.

However, there is hardly a clear and comprehensive definition that spans all the different realities at national or regional levels in Asia and the Pacific. Similarly, the term ‘family farm’ is not commonly used in the history of Asian agriculture. Instead, there are some analogous concepts deeply rooted in different cultures and languages when referring to this family-based farming unit—for example, *nong hu* in Chinese and 農家ノウカ in Japanese, both meaning ‘agricultural household’. From these terms, it is evident that, in East Asian societies, the family and the household play a key role in both the concept and the empirical reality of family farming. In Vietnam there is not much difference between the concepts of family farms and rural households. When mentioning family farms, people would think of households, and vice versa, because most farmer households are owners of agricultural land, while their main source of income comes from agricultural activities. In contrast with Western countries, the old ‘agrarian question’ has never been ‘resolved’ in Asian countries, as family farming has not disappeared nor been replaced by capitalist farms and agribusiness (though the extent of agricultural industrialisation may differ in some countries, family farms still dominate agricultural production).

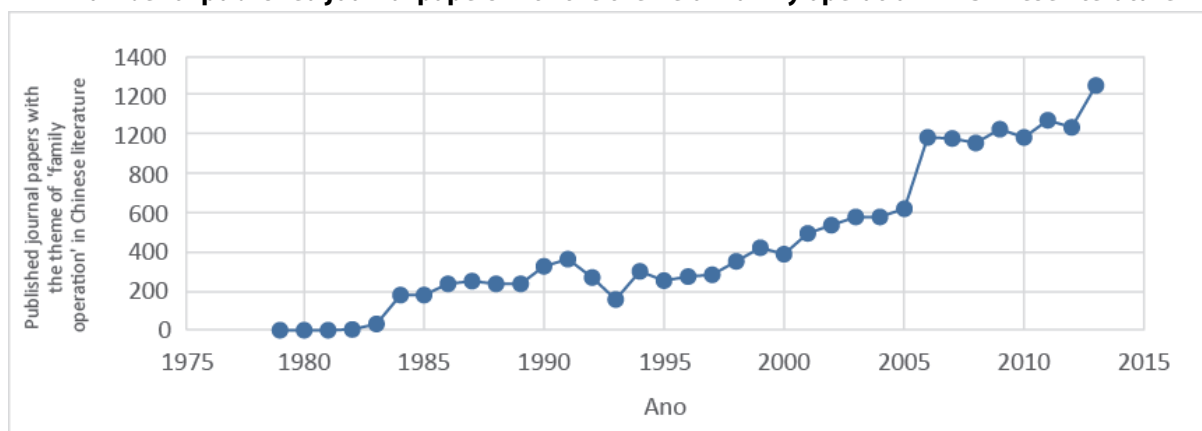
FIGURE 1

Number of published journal papers with the theme of ‘family farming’ in Chinese literature



Source: CNKI.NET academic database.

FIGURE 2

Number of published journal papers with the theme of 'family operation' in Chinese literature

Source: CNKI.NET academic database.

Debates and analyses on family farming and family farms boomed only when 'family farming' in Asian countries seemed problematic when encountering globalised capitalism and West-shaped modernisation. A literature summary from the CNKI.NET Chinese academic database (see Figures 1 and 2), for instance, shows a dramatic increase in the number of journal articles on 'family farming' and 'family operation' in agriculture since around 2005. In Asia and the Pacific, the debates for and against family farming are escalating, and the concept of 'family farming' has also become more controversial in this context.

3.1 DIVERSITY AND DIFFERENTIATION OF FAMILY FARMING

The conventional definition of a family farm, closely aligned with Chayanov's theoretical presentation, refers to a farm that uses only family labour (Chayanov 1996 [1925]). Farms that rely on hired labour are usually described as capitalist farms. Yet, in reality, this dichotomous boundary has been blurred, and family farms are showing huge diversity in their ways of organising production (let alone the numerous differences in modes of production and farming systems across various countries and regions): family farmers might farm on self-owned land, state-owned land, rented land or contracted communal land; their production might be labour-intensive, technique-intensive or capital-intensive (though very controversial, it may be argued that the capitalised family farms still follow the key principle of 'family-based farms') (Dong 2014). They might produce mostly for their own needs, only partly, or not at all, without ceasing to be family farms; they might hire one to a few labourers without becoming anything like capitalist enterprises (Brookfield 2008). Research into hired labour in the Indian state of Punjab (Wang 2009) has differentiated the 'consumptive utilisation of hired labour' by women and elderly people in the countryside to substitute their physical shortcomings from the 'productive utilisation of hired labour' in capitalist family farms for enlarged reproduction. Under the umbrella of the 'family farm', the form of family-based agricultural operation *per se* demonstrates huge diversity in this region in general, along with agrarian change.

Japan and China might be taken as examples to explore the diversity and differentiation of family farming between and within countries. Both countries have official classifications and scholarly debates regarding family farming. Yet, due to their different position in economic development and the political environment, family farms in China seem to be experiencing more acute differentiation at present.

Family farming in Japan refers to agricultural operations based on family labour and family property (land and other agricultural assets) to satisfy family needs (Shogenji et al. 1993, 87). Up until now, farming households have been conceived as the major operating entity in agriculture. Since the 1960s, different types of family farming in Japan have been gradually emerging, with a small proportion of family farms showing the trend towards corporatisation. Thus, family farming in Japan is frequently represented by four categories in terms of operational activities:

- **Entrepreneurial family farming:** The family provides the majority of labour and utilises family-owned land and agricultural assets to carry out economic activities. The family also largely uses rented land, hired labour and external capital in the operation. Even if deducting the wage cost of family labour, capital costs and rent for self-owned land, family farming can still ensure a modest payment for operators above the level of labour in other industries.
- **Main business type of family farming:** In this type of family farming where family labour is central, more than half of the family's income is derived from agriculture. This type of family mainly uses self-owned farmland, agricultural assets and family labour, while the use of loans, rented land and hired labour is secondary.
- **Concurrent business type of family farming:** The family has its own farmland and agricultural assets, and its primary members work in off-farm activities. More than half of the family's income is from non-farm activities. Though some members of the family participate full-time in agriculture to supplement income from off-farm activities, agriculture holds a minor position in the household economy.
- **Family farming for self-provisioning:** Farming is mainly for self-consumption, and only a small proportion of agricultural produce is for sale. Most families in this type of activity own farmland but do not have family members specifically working in agriculture. The family's basic living expenditure does not rely on agriculture. Some families would lease the majority of their farmland to other operators.
- After 1990, the categories of family farming in Japan were re-classified into two major types: commercial family farms and self-sufficient family farms. Commercial family farms were divided into three types:
 - **Main business type of family farming:** Income from agriculture accounts for over 50 per cent of the family's income. There is at least one family member under 65 years old participating in self-operated agriculture for over 60 days per year.
 - **Quasi-main business type of family farming:** Income from non-farming activities accounts for over 50 per cent of the family's income. There is at least one family member under 65 years old participating in self-operated agriculture for over 60 days per year.
 - **Concurrent business type of family farming:** Farming households that do not fit into the first two types and that do not have at least one family member under 65 years old participating in self-operated agriculture for over 60 days per year.⁹

TABLE 2

Typology and comparison of family farming in Japan in 1990 and 2009

Category	1990 ¹		Category	2009 ²	
	Number	Standard		Number	Standard
Entrepreneurial family farming	20,000	Family labour dominance; revenue from agriculture	Main business type of family farming	350,000	Revenue from agriculture; work input of family member
Main business type of family farming	760,000	Family labour dominance; revenue from agriculture	Quasi-main business type of family farming	390,000	Work input of family member
Concurrent business type of family farming	1,140,000	Family labour division; revenue from agriculture	Concurrent business type of family farming	970,000	Work input of family member
Self-sufficient family farming	1,920,000	Revenue from agriculture	Self-sufficient family farming	770,000	Revenue from agriculture

Source: 1. Japanese White Paper on Agriculture 2013; 農業経営の動向と農業生産を支える経営体・農地等をめぐる状況 (Data from Japan's Ministry of Agriculture, Forestry and Fisheries on trends of agricultural operation, operating bodies and land).

It is clear from Table 2 that the number of self-sufficient family farming and concurrent business type of family farming establishments shrank in Japan between 1990 and 2009. Non-family corporate operation in agriculture was restrained to support family farming.¹⁰ However, the restrictions on corporate operation systems have been relaxed in recent years. In the *Basic Law on Food, Agriculture and Rural Areas*, issued in Japan in 1999, the promotion of legal person operation in agriculture was put on the agenda to establish “an ideal agricultural structure”, and the crucial requirement for this goal was to “involve specialised operative entities into innovative operation in agriculture”. This policy transfer was associated with the ageing trend of the farming population and the hollowing of rural communities, which will be discussed later in this paper.

Despite thousands of years of family farming tradition, the ‘family farm’ concept was only officially proposed in China in 2008 at the third plenary session of the 17th Central Committee. Regions “with appropriate conditions” were encouraged to “develop multiple agricultural operative entities other than the family, such as largeholders, family farms and farmers’ cooperatives”. The *No.1 Document of the Chinese Central Government*, issued in 2013, explicitly indicated that “specialised largeholders and family farms should be supported and promoted through favourable policy and legal environment and subsidies and grants”.¹¹ Consequently, the definition, identification and registration process of ‘family farms’ became the focal point in academia and practice. In the definition of the Chinese Ministry of Agriculture, the family farm is “a new type of operative entity in agriculture that is mainly based on family labour to pursue large-scale, intensified and commodified agricultural production and operation”.¹² Under this

definition, the political ‘family farm’ is apparently a new introduction to Chinese agriculture and largely separated from the widely existing family farming phenomenon in its countryside.

Extensive academic discussion has developed based on this political advocacy on ‘family farm’, and almost all scholars who have a pro-‘family farm’ stance agree that family farms should be a legal entity as a business and enterprise with the features of marketisation and modernisation. The features of ‘family farms’ should be enumerated thus: a family, moderate-scale, market-oriented operation featuring entrepreneurial management. In terms of the composition of production factors and attributes of labour and product, such a ‘family farm’ is very close to a corporate farm. The fundamental difference between the two is that the former depends more on family labour for its production and operation. Meanwhile, the essential difference between ‘family farms’ and empirically existing family farming households is that the former participate completely in market exchange with their specialised commodity production—i.e. marketised operation.

Giving consideration to both risk aversion and livelihood development, family farmers in general usually simultaneously embrace market and non-market agricultural production activities—as Ellis (2006, 14) states, “peasants just partly involved in [...] markets of agricultural inputs and outputs”. The prominent feature of family farming and peasant agriculture—the interconnection between family livelihood and agricultural production—is disregarded in the newly promoted ‘family farm’. Household equilibrium at the livelihood level has been substituted by market equilibrium (Gao et al. 2013).

Though the term ‘family farm’ has been emphasised in various government policies and documents, it is not uniformly defined. Standards and criteria for identification and registration as a ‘family farm’ differ across different provinces, municipalities and counties. In March 2013, the Chinese Ministry of Agriculture carried out the first national survey on the development of family farms. Farming units satisfying the criteria summarised in Box 1 were qualified as ‘family farms’.

BOX 1

Criteria for ‘family farm’ in survey by the Chinese Ministry of Agriculture

- Operators of family farms should be registered as rural residents (*hu kou*).
- Predominance of family labour; no long-term hired labour; hired labour amounting to no more than family labour.
- Income from agriculture comprises the major source of income for the family, and net income from agriculture accounts for over 80 per cent of the farm’s total income.
- Scale of production reaches a certain standard and remains stable. Size of farmland (with contract period longer than five years) engaged in the production of grain should be over 3.33 ha (double cropping) or over 6.66 ha (single cropping). For farms with cash crops, husbandry or both, operational size should conform to the standards set by the local Departments of Agriculture.
- Operators of family farms should have received technical training in agriculture.
- Family farms should keep complete financial records.
- Family farms should represent a role model to other farmers and agricultural households.

In this national survey, 877,000 ‘family farms’ were counted (in contrast to 200 million in the Background Paper for FAO’s *The State of Food and Agriculture 2014*) working on 13.4 per

cent of contracted farmland in China. Average labour input amounted to 6.01 units, 1.68 among which are long-term hired labour. Most family farms specialise their production and operation in either crop cultivation or husbandry, with only 6 per cent taking up a diversified operation. The average production scale for the family farms surveyed is 13.3 ha, which is nearly 27 times the national average size of farmland per household (0.5 ha) and also in sharp contrast to the minimum 0.07 ha of Chinese family farms mentioned in the Background Paper for *The State of Food and Agriculture 2014*.

TABLE 3

Size of officially identified ‘family farms’ in China¹³

Size (ha)	Number	Percentage of total
<3.33	484,200	55.2
3.33–6.66	189,800	21.6
6.66–33.3	170,700	19.5
33.3–66.6	15,800	1.8
>66.6	16,500	1.9
Total	877,000	100

The formal definition and articulation of ‘family farm’ (which is contested by several critical groups in Chinese society) should be understood in the broader context of agrarian change in China. Over the last two decades, China’s agrarian transition occurred in two stages: first, the commoditisation of both agricultural production and the reproduction of farming households; and, second, the organisation of agricultural production beyond the household threshold (variously known as vertical integration, industrialisation and scaling up) (Zhang and Donaldson 2010). These two stages led to the capitalisation of farms and a partial proletarianisation of farmers.

- A capitalised family farm in the Chinese context could be characterised by four aspects:
- the possession of large-scale farmland obtained through land transfer (with payment and formal contract), and equipped with mid-large sized machinery;
- it features primarily family labour and combines short-term hired labour for productive utilisation;
- the household as the accounting unit geared towards profit maximisation;
- continuously enlarging reproduction through capital accumulation, to achieve optimal scale for profit maximisation (Chen 2013).¹⁴

Although the form of ‘family production’ is formally kept (as utilisation of family labour), capitalised family farming is essentially different regarding the linkages between the family and the rural community because it is completely market-oriented and disregards the balance between production and family needs, and its extensive reproduction transcends the potential of family labour and the community boundary of *renqing* (favour). Therefore, such family-based capitalised farming can no longer be defined by the concept of ‘family farming’.

From the official explanation and the criteria featured in the national survey, it is obvious that the Chinese government’s politically promoted ‘family farm’ falls into the category of

capitalised family farm. Its capitalist features imply predatory effects on the livelihoods of many small-scale farms. The promotion of large-scale 'family farms' is based on the premise of land transfer. In the sample area for 'family farms' in the Songjiang district of Shanghai, for example, 99.4 per cent of farmland had been transferred to 'family farms' by 2011 (ibid.). Policy steering of land transfer to a minority of largeholders intercepts land transfers to other, ordinary farming households. An unequal power relationship between largeholders (who are usually social elites in the rural community) and other family farmers makes the latter vulnerable in the formulation and negotiation of contracts. In addition, the normalisation and long-term (usually 5–10 years) nature of land transfer contracts required for registering as a 'family farm' imply that rural households that contract out their land use rights cannot terminate the contract even if their basic livelihoods are urgently endangered. Land concentration in 'family farms' and their preference for capital-intensive farming are exacerbating the employment issue for rural labour in China's current urbanisation scenario. Large-scale capitalist farming should not be the future of Chinese agriculture, and it should not be confused with true family farming.

3.2 CHARACTERISING 'FAMILY FARMING' IN THE ASIAN CONTEXT

In academic writing and practice, the terms 'family farming' and 'peasant agriculture' are often conflated and used interchangeably (Edelman 2003; Nicholson 2009), particularly in the case of Asia and the Pacific. From the aspect of political economy, 'peasant' refers to household-based agriculturalists who use family labour to produce staple grains mainly for subsistence and depend on non-commoditised relations for the household's reproduction—that is, a minimal participation in land, labour, credit and input markets (Friedmann 1980; Zhang and Donaldson 2010). The peasant form of production distinguishes itself from other commoditised forms (such as simple commodity production and capitalist production) through the combination of two characteristics: the use of households as units of production and the non-commoditised reproduction of the households themselves. From a socio-cultural perspective, peasant agriculture starts from culturally defined 'needs' in local society (Wolf 1955), its traditional behaviours and culture as related to village or community life (Shanin 1971). The political submission and economic exploitation by the dominant classes, the market and the State resulted in the marginal status of peasants (ibid.; Wolf 1955). "On the whole, [peasants] are consumer-producers for whom the separation of capital and labour, profit and wage, process of production and use of end product, is meaningless" (Lipton 1977, 66). Peasant agriculture is a way of life and the basis for their physical and cultural survival (van der Ploeg 2008).

Before the advent of agrarian commodification and capitalisation, family farming could indeed be considered equivalent to peasant agriculture. In the long history of Asian agriculture, family farming exhibited the same features as peasant agriculture due to the centrality of the family in agricultural production and its embeddedness in local society. For agricultural households, the ultimate objective is "health and wellness of whole family, income is only an intermediate objective... in all, what they pursued is not profit maximization" (Soda 2003, 149). In a word, subsistence was the predominant logic of family farming. A series of features and merits of family farming have, therefore, arisen in the realisation of family subsistence: the conservation of biodiversity, resource efficiency, co-production with nature, the holding of multiple jobs, and a resilient community.

Academically, the existence of peasants and peasant agriculture in developing countries has been under permanent discussion since the 19th century, with basically two opposite

theses—the disappearance thesis and the permanence thesis. Observations on the trends of depeasantisation and repeasantisation differ according to different country contexts. Far from being a relic of the past, peasant agriculture in the 21st century is undergoing both challenges and transformations. Simultaneously, the universal commodification of the means of production has deeply transformed the mode of production under family farming. Family farming has gone beyond the analytical concept of peasant agriculture. Non-peasant forms of production can still be family-based, as long as the production is fully integrated into markets (Zhang and Donaldson 2010). Although the household unit is maintained, some family farming evolves into subordination to agribusiness through contract farming. Applying political economic analysis, the development of family farming—as in the case of China, for example—can take different turns (see Table 4).

TABLE 4

Analytical typology of family farming in China

		Contract farming ←	Peasant farming	→ Commercial farming (simple commodity production)	→ Capitalist farming (capitalist production)
Unit of production			Rural household		
Land	Rent out		Allocated family farmland	→	All rented/contracted
Labour	Family labour		Family labour	→	Major part of hired labour
Capital	Agribusiness supplied		Minimum, all self-supplied	→	Substantial, all loaned
Harvest	For agribusiness		Self-consumption	→	All for non-local market
Household reproduction	Commodified means		Non-commodified means	→	Commodified means

Source: Authors' elaboration.

As seen in Table 4, various types of household-based farming can be summarised under the concept of 'family farming' in China. It should be noted that, just as there are "degrees of peasantness" (van der Ploeg 2008), family farming represents a spectrum ranging from the fully self-reliant subsistent peasant to more externally dependent and capitalised farming. If relating to the two very general criteria of family farming by FAO—"managed and operated by a family" and "predominantly reliant on family capital and labour", only the central part of the typologies detailed in Table 4 could be considered as family farming in a strict sense. Synthesising from the political economic aspect, family farming could be seen as family-based farming activities that primarily rely on allocated family farmland, family labour and self-supplied capital for household reproduction and subsistence. Its dependence on, and involvement in, external markets for productive factors (such as land, capital, labour and inputs) is partial.

TABLE 5

Essential scope of family farming in China

		Contract farming ←	Peasant farming	→ Commercial farming (simple commodity production)	→ Capitalist farming (capitalist production)
Unit of production			Rural household		
Land	Rent out		Allocated family farmland	→	All rented/contracted
Labour	Family labour		Family labour	→	Major part of hired labour
Capital	Agribusiness supplied		Minimum, all self-supplied	→	Substantial, all loaned
Harvest	For agribusiness		Self-consumption	→	All for non-local market
Household reproduction	Commodified means		Non-commodified means	→	Commodified means

Source: Authors' elaboration.

However, family farming is not defined only by its basic economic characteristics but also by its environmental, social and cultural functions. It is often those characteristics that constitute the vitality of family farming and explain the efforts of different actors defending it. Based on the family farming activities in Asian societies, particularly in China, the characterisation of family farming involves relationships among three basic subsystems—i.e. family/household, farm/agriculture and local society—all of which are closely and interactively linked. These relationships might result in very important features. Family farms in this region will not necessarily display all these features; some may be more prominent in, for example, Vietnam, while others may excel in Japan, for instance. Family farms may also exhibit one single feature to different extents depending on the social dynamics of the region. The following features make family farming outstanding for agricultural development and general well-being in Asia and the Pacific:

- Subsistence and livelihood satisfaction:** The fundamental feature of family farming is its orientation towards subsistence and the satisfaction of livelihoods. Subsistence here does not mean survival or a minimum standard of living. Instead, it refers to all the material and immaterial ingredients required by a rural household for a quality of life, including food, cash, employment, leisure, dignity etc. With this orientation, rural households will develop different strategies and specific production arrangements (including migration, off-farm employment, polyculture, side-line operations, various types of family labour division etc.) to satisfy subsistence and livelihoods needs, but not necessarily aiming for income or profit maximisation. The pursuit of subsistence is not a shield against the commodity economy and free markets, but household reproduction is always prioritised in family farms. Agricultural production is seen as part of life, rather than solely an economic activity. Given a decent level of subsistence, family farmers might feel at ease to increase their leisure time and enjoy life disregarding cost calculations. Going from individual households to the rural community level, family farms would all respect the subsistence of other households and conform to the moral economy of local society. Within the neighbourhood, there are often informal arrangements in place to protect household subsistence—for example, through reciprocity, mutual help and common resource management.

- **Family centrality:** Related to the primary feature of subsistence orientation in family farming, the family is always central to the deployment of farming activities—specifically, its use of family labour as self-employment. Farming activities primarily rely on family labour, and occasionally on hired labour for short-term consumptive utility, which means that hired labour is used to cover for injured or otherwise physically disabled family members (especially women and elderly people), but not for increased production. In return, expanded reproduction in family farms would not exceed the labour capacity of the family. It is basically *self-reliant* regarding the mobilisation of resources. Resources for agricultural production are mainly provided by and mobilised within the family, including self-controlled (though not necessarily self-owned) farmland, labour, capital accumulated by saving, tools and crop seeds. Family consumption and food and nutrition needs are also predominant in the disposal of harvests. Farming activities are flexibly adjusted according to the changing situation of family labour and accessibility to resources. The farm is co-evolving with the rural household. Family centrality and its specific representation in self-employment and self-reliance contribute to the *self-sufficiency* of family farms.
- **Labour intensification:** Due to the small scale of farmland and the intense land–people ratio in Asia and the Pacific, family farming is inevitably characterised by labour intensification. Labour intensification is also driven by the inherent co-production between people and the land—farmers dispense as much care to the land as they can to achieve better subsistence for their family. The adoption of labour intensification is also determined by the natures of particular eco-systems, which are often at odds with capital-intensive technologies. Far from giving way to labour-saving capitalised production, family farming generates changes in the direction of lower-cost labour intensification, with high gross returns from the farm (Huang 1990, 12–13). In short, development is not based on industrial, energy-intensive agriculture (Netting 1993). Labour, or family labour, is central to intensified development.
- **Diversification, pluriactivity and risk reduction:** In the pursuit of subsistence, families will try to diversify agricultural production and economic activities, usually combining crop plantation, animal husbandry, forestry, fishery, handicrafts, small business operations and seasonal labour migration. Considering the household as a whole as the production unit, pluriactivity and multiple jobholding are usually undertaken by different family members according to the domestic division of labour. Diversification in agricultural production and pluriactivity are, on the one hand, satisfying the multiple needs of the family and, on the other hand, reducing risks. The creativity of family farms regarding economic coping strategies, both on and off the farm, should not be overlooked.
- **Autonomy and deliberate market integration:** As stated before, family farming is not a shield against the commodity economy and free markets. In the past, peasant farmers were often involved in local markets to sell surplus and exchange necessities. This happens more so under the commodified economy of modern society. However, family farmers will be deliberate in market integration for reasons of risk reduction and self-sufficiency. Therefore, a certain degree of autonomy is maintained. For instance, family farmers would preferably mobilise a self-controlled resource base (e.g. seeds stock, farmyard manure) in organising production. They would differentiate products for self-consumption from those for market circulation (known as ‘two systems in one family’),

the former with better quality for the well-being of the family, but this arrangement was often very controversial. In the face of market fluctuation for a particular product, they could flexibly retreat and even cope by finding other ways to add value.

- **Endogeneity and locality:** Production under family farming is deeply rooted in locality. It is an endogenous mode of production. Farming systems are adapted to local, heterogeneous environments and depend on the high use of local natural and human resources (such as local crop and animal varieties, local knowledge and skills). Furthermore, products in family farming usually have strong linkages with local diets, food habits, lifestyles and local markets. Production under family farming is organised in local environments through local resources for local lifestyles, not for integration into globalised food regimes. This endogenous nature helps to maintain biodiversity and once again reflects the predominant role of culturally, locally defined subsistence in organising family farming.
- **Food sovereignty and food safety:** With the above features, family farming contributes to food sovereignty and food safety. It safeguards food security for producers, especially marginalised peasants and poor households, localises food systems, renders control and autonomy to local populations, builds knowledge and skills, and works together with nature (ISC 2007). It implies the rights of small-scale family farmers to access agricultural resources. The feature of food sovereignty is particularly important in the context of the global food regime and land grabbing.
- **Environmentally friendly and cultural heritage:** Family farming is an important carrier for ecological sustainability and culture heritage. Localised, endogenous family farming and its co-production with nature will benefit the rural environment and ecology. Its diversified farming system and sustainable use of resource contributes to the maintenance of local landscapes. As a place for the intergenerational transfer of skills, knowledge, folklore and social norms within a family and as part of a local neighbourhood and social network, family farming will facilitate cultural heritage and continuity and strengthen the bonds of rural 'community', which is essential for the development of vast rural areas in Asia.

Alongside the classification of family farming in terms of political economy, these features elaborate on the nature and quality of family farming more specifically.

4 CHALLENGES FOR FAMILY FARMING

4.1 CONTRACT FARMING AND FAMILY FARMING UNDER RISING CAPITALISM

The transition from family farming to large-scale, capitalised farming occurs in the developing countries of Asia and the Pacific through contract farming. Perplexed with the inherent difficulties of small farmers in producing for distant markets, some countries—such as China and India—started to push for the establishment of farm-firm linkages: organising agricultural production beyond household boundaries and vertically integrating production with processing and marketing (henceforth referred to as 'vertical integration'). Contract farming represents a middle path between the smallholding family and corporate farming using wage

labour. In the late 1990s, the Chinese central government deployed a new scheme to more forcefully promote vertical integration: supporting the so-called 'dragon-head enterprises', many of which were funded by private urban capital. Between 2000 and 2005 alone, the central government invested CNY12 billion to support national-level dragon-head enterprises (Huang 2010a). Local governments followed this lead with similar efforts to support local-level 'dragon heads'. Since 1978, the expansion of agro-capital has brought contract farming into a sector that had long been dominated by smallholding, independent family farms (Zhang 2012).

A series of national surveys conducted by China's Ministry of Agriculture found that the percentage of rural households engaged in market-oriented, commercial agriculture nationwide increased from 10 per cent in 1996 to around 50 per cent in 2005 (Niu 2006; Huang 2010a). Among the various organisations that intermediate commercial producers' transactions with markets, the majority use contract farming. Nationwide, the number of organisations that engage household farmers in contract farming rose from 8,377 in 1996 to 58,186 in 2002 (Niu 2006). In one single coastal province of China, Shandong, in 2001, 1.4 million hectares of cultivated land—about 20 per cent of its total arable land—was devoted to contract farming, and 15 million rural households participated in contract farming (Huang 2010a). The rapid growth of contract farming is also a part of China's 'hidden agricultural revolution' under which structural changes occurred in the domestic food regime without significant change in the means of production (Huang 2010b). Therefore, Chinese agriculture is proceeding with capitalisation without the proletarianisation of millions of smallholding households (Huang et al. 2012).

Studies of contract farming in developing countries have yielded conflicting empirical findings about its impacts and offered diverging assessments regarding its role in agrarian change. Some studies applauded the income-raising effect of contract farming compared to independent, small-scale farming, and its positive role in bridging gaps in information, knowledge and technology (Birthal et al. 2009). Researchers who adopt a political economy view see contract farming essentially as a method whereby agribusiness companies shift production risks to small farmers while gaining control over their labour and land (Wilson 1986; Little and Watts 1994). Compared to the increase in income (which often proves uncertain due to market fluctuation and agribusiness normalisation; see Wilson 1986; Little and Watts 1994), the loss of social standing and political power over their own land and labour, the increased social differentiation and disintegration of rural communities, the rising inequality and risks of landlessness represent colossal impacts for family farming and rural society as a whole (see Zhang 2012). A narrowly focused analysis of the income-raising effect of contract farming can lead to an oversimplified understanding of contract farming as 'pro-poor' and to misinformed policy suggestions (Miyata et al. 2009). Selective policy support for agribusiness and contract farming primarily serves the interests of agro-capital and can hardly be considered pro-poor. Besides, it is only a last resort for small producers when alternative forms of commoditised agriculture—which depend on support from public actors—are absent. In other developing countries, it is precisely the absence of government support for agriculture and collective actors capable of organising cooperatives that provide fertile grounds for large agribusiness companies to expand contract farming (Zhang 2012).

4.2 LAND GRABBING

Given the large population and scarce farmland resources, control over farmlands is always the most vital element to agriculture and rural societies in this region. However, family farming is currently under severe threat by the advance of land grabbing. According to the Land Matrix, Asia is second only to Africa in terms of the number of hectares affected by land deals, with Africa having 15,632,169 ha and Asia 5,938,486 ha affected by large land deals. Of the 807 deals around the world, Southeast Asia is home to 379 land deals covering agriculture, conservation, forestry, industry, renewable energy, tourism and others. This represents 46 per cent of the total of 807 deals but does not include agricultural land deals that are under negotiation.¹⁵ As most of these investments in agriculture do not really target idle land but, rather, productive small farms, family farmers lose their lands as plantations are put up where family farms used to thrive. In this process, family farmers are displaced and suffer human rights violations, as many of them do not have any kind of deed or certificate for secure land tenure (Guttal 2006).

It is widely acknowledged that the global land rush or global land grabbing were spawned by the convergence of numerous global crises—food, energy and climate change. Land grabbing for large-scale cropping is often presented as a vehicle for augmenting food production and feeding the hungry. However, evidence shows that land grabbing, either crossing or within borders, is more closely linked with the industrialisation-oriented development of a State than with a concern for food security.¹⁶ Many land grabs and agricultural land investments were initiated long before the 2008 food crisis and driven by the demand for alternative fuel sources (i.e. agro-fuels or biofuels), increasing demand for climate mitigation measures (e.g. relocation of high-carbon-emitting agricultural production in other countries and carbon trading through afforestation) and other industrial developments by various investing entities, especially developing Asian countries (Obanil 2012).

Farmland conversion in China mainly serves the rising construction demands in industrial and urban areas. Three periods of land expropriation—‘land for local industrialisation’, ‘land for commercial fortunes’ and ‘land for mortgage loans’ by local governments—could be identified since the 1980s in Chinese society. The Ministry of Land and Resources disclosed that in the loss of arable land, 77 per cent goes to construction projects. According to the 2011 *China Urban Development Report* by China’s Academy of Social Sciences (CASS), the current number of Chinese peasants who have totally or partially lost their lands amounts to 40–50 million. This number is estimated to increase by 2–3 million per year (Houtart and Wen 2013, 30–31).

Similarly in Vietnam, industrial development has been also achieved through the expropriation of farmland at the expense of the livelihoods of family farmers. Most of Vietnam’s industrial zones have been developed in densely populated areas such as the Red River Delta and the Southeast regions, one of the country’s most important ‘rice bowls’. According to statistics from the Ministry of Natural Resources and Environment, between 2001 and 2005, 366,000 ha of agricultural land were transferred to non-agricultural use, accounting for 3.9 per cent of the total agricultural land area. Thus the average loss of agricultural land was about 73,000 ha per year. Also during this period, the agricultural land belonging to over 300,000 households in the Red River Delta region and 100,000 households in the Southeast region was also transferred (Mai 2008). According to Nguyen Vinh Hai, food security for the regions that lost about one third of their land area can almost no longer be guaranteed. According to other research (Nguyen et al. 2010) in the Red River Delta, this is the case for around 70–80 per cent of households in industrial zones that had to buy food (rice).

4.3 MIGRATION AND DE-AGRARIANISATION OF RURAL YOUTH

Multiple jobholding is an important strategy assumed by farming households in Asia and the Pacific. Under global industrialisation and urbanisation, especially since the 1980s, farming alone is increasingly unable to sustain the rural family; therefore, different forms of part-time farming have emerged in rural households, ranging from working in townships and village enterprises (TVEs) (in China referred to as 'leaving the fields but remaining in the rural area') to temporary, seasonal urban migration and even long-term migration. Across much of the developing world, temporary labour migration is an important livelihood strategy, especially for rural households.

As one of the two roles (half farming, half labour) that comprise rural livelihoods in Asian societies, the impacts of migration on family farming have varied at different times. In very general terms, studies are divided between those arguing that migration has a deleterious effect on farming systems, and those suggesting that it allows for agricultural improvement and modernisation. The prevailing view is that urban–rural remittances are rarely used to improve farming enterprises, and are usually dedicated to basic needs, housing, debt repayment and conspicuous consumption (Jokisch 2002). Yet it is true that remittances from urban migration provide crucial investment and inputs for agricultural production, which is increasingly important under the aggravated trend of rural commodification. It is also true that due to the combination of labour migration and farming, millions of family farms in China are protected from proletarianisation (Huang 2012a). Despite the growth of non-farm income, the farm itself remains economically and symbolically important to rural households. Farm income is an important additional source of security against the backdrop of volatility and uncertainty within urban areas (Fan and Wang 2008).

Meanwhile, it is also necessary to envisage the negative impacts of migration on family farming. At the household and individual levels, the most notable change after labour migration is the increasing involvement of women, children and elderly people in farming and, consequently, their dramatic labour burden (Lukasiewicz 2011; Ye and Wu 2008; Ye and He 2008). In China alone, it is roughly estimated that there are 47 million women,¹⁷ about 50 million elderly people¹⁸ and 60 million children¹⁹ left behind in the countryside and separated from their migrant spouses, adult children or parents. Among them, the women and elderly people left behind are taking on most of the productive activities. Some countermeasures have been developed to respond to the decreased availability of family labour—for instance, labour exchange within neighbourhoods, hiring labour or machines in the busy season, reducing farming area and leaving fields fallow, shifting to crops with lower labour intensity etc. The outcome is often a transfer from labour-intensive cultivation for food purposes towards lower-value 'fast farming' (van der Ploeg 2008); in more extreme cases, the selective abandonment of farming and the removal of land from agriculture are possible results (Li and Tonts 2014). These extreme cases are often accompanied by very low revenue from agriculture.

Faced with the ageing of the farming population, East Asian countries have been witnessing a continuous de-agrarianisation of rural youth. The younger people prefer to move or commute to urban areas, and the remaining middle-aged and elderly population continues farming. In Japan, this process began just before the high economic growth of the 1960s. Korea and Taiwan underwent almost the same process during the 1970s and 1980s (Ishida 1985). China and most of the countries of Southeast Asia experienced almost the same process in the late 1980s and 1990s. However, their patterns have varied according to access to urban areas and

labour supply conditions (Hosoya et al. 1997). The background to this change is the overall penetration of the market economy into East Asian rural spaces and the change of the rural economy from an 'agriculture-first economy' into a diversified one both at the macro and micro levels (Ellis 2000). The number of migrant workers in China reached 263 million in 2012.²⁰ The proportion of the urban population also increased from 17.92 per cent of the total population in 1978 to 51.27 per cent in 2011²¹. Unlike the former generation searching for employment and cash income in cities, the new generations of peasant workers are no longer content with meeting the basic needs of earning cash to maintain the reproduction of peasant households. Enjoyment of an urban lifestyle and attainment of citizenship and social rights are further pursuits for the new generation of rural migrants (typically those born after the 1990s). Most of them barely have experience with, or interest in, agricultural production. Their wish to settle in the city is to some extent in line with the Chinese government's policy of urbanisation, yet labour reproduction of those migrant workers can hardly be guaranteed under the present system.

The challenges of a decreasing young and middle-aged labour force in agriculture and the ageing of the farming population are monumental in more industrialised countries such as Japan. Through post-war urbanisation and industrialisation, the issue of surplus rural population in Japan has been solved, and modernisation of agriculture and the countryside has been achieved. Employment in agriculture decreased from 45.1 per cent in 1950 to 17.8 per cent in 1970. As of 2010, the size of the labour force in family farming was 2.61 million people. The average age of the labour force in family farming was 65.8 years. About 60 per cent of the family labourers were over 65 years old, and about 30 per cent were over 75 years old. It is estimated that the amount of primary labour²² in family farming will decrease from 1.91 million people in 2009 to 1.45 million in 2020, among whom those over 65 years old would account for 65 per cent (0.94 million).²³

The exodus of rural youth (including the heirs to family farming businesses) leads to the phenomenon of hollow villages and the shortage of an agrarian labour force (countries such as Korea and China are exhibiting a similar situation). An emptying countryside and an elderly farming population imply a severe dilemma for the reproduction of family farming. Since 1990, the abandonment of farmland has become an increasingly critical situation in Japan. The main reason for abandoning farmland is population ageing, the shortage of a labour force, and a lack of people to take over the plot. In turn, the abandonment of a limited amount of farmland has aggravated the external dependence on the world food market. Though supportive policies have been applied to encourage the formation of cooperative entities and the involvement of urban people in agriculture, the decrease of the farming population has strongly weakened agriculture. Bringing the labour force back to agriculture while responding to the needs of an ageing welfare society is a huge challenge faced by Japan and other East Asian countries (Kitahara 2004).

5 REFLECTIONS AND RECOMMENDATIONS

The understanding of family farming is closely tied to views on agriculture and development. Regions in different geopolitical situations, countries with different developmental goals and strategies, scholars from different schools of thought and even farmers under different conditions will, therefore, elaborate varied and even conflicting perspectives on family

farming. Throughout history, farming (not to be confused with 'agriculture' as an industry) has represented an important connection between nature and human society. The endless circulation of life is the essence of farming (Bauman 2006, 15). Family has become the essential interlinkage in this circulation, which has fulfilled the integrity of nature, culture and human life. However, when seen as an industry and economic sector, agriculture tends to be dehumanised by economic standards and to be reduced to monetary transactions only. Agriculture in this way could and should submit to the market.

Because Asia and the Pacific is generally a developing region, most developing countries therein have embraced the developmental paths of industrialisation, urbanisation and marketisation—in short, a Western conception of 'modernisation' as set by Europe and North America. Marxist classical elaborations on the industrial capitalist development in England and prognostications on the destination of peasants, models of large-scale industrial farms in North America and the more recent global neo-liberalisation have all deeply affected family farming and agricultural development in Asia. Since the 1980s, agriculture in Asian countries, such as China, India, Japan and Korea, has been actively integrated into global markets. In its economic reform during the 1990s, India confirmed its outward orientation for agricultural development under the flag of liberalisation, marketisation and globalisation. In China, the pursuit of modernisation in agriculture has constantly taken the large-scale industrial model as reference, despite different developmental stages after 1949 and the impediment of a large rural population. Japan and Korea used to have highly protectionist policies and a preference for domestic agriculture. Supporting peasant agriculture and modest ethics regarding food consumption, the two countries enjoyed food self-sufficiency until the 1960s. However, trade liberalisation cut the level of food self-sufficiency in Japan and Korea from 83 per cent and 93 per cent, respectively, in 1960 to 28 per cent and 27 per cent, respectively, in 2008 (Zhang 2011).

The over-reliance on global markets for food supply and an associated structural adjustment of agriculture have weakened the space for family farmers and their livelihoods. The global market is reaching deep into peasant and family-based farming, once presumed to be insulated by protectionist policies or high levels of subsistence. The forces of globalisation, de-regulation and withdrawal of the government from agriculture, the liberalisation of agricultural sectors, the privatisation of services and information, structural adjustments, international trade agreements and new technologies create an ambiguous environment for policymaking.

Family farmers contribute to the development of local markets, community-level cooperation and resilience, and ultimately to countries' Gross Domestic Product (GDP). They play important roles in enhancing the multi-functionality of agriculture, such as by preserving local traditions, heritage and food systems, as well as community ecosystems and rural landscapes (FAO 2014). However, such an important role can hardly be realised without overall recognition and external support. At the national and regional levels, policymaking regarding family farming and agriculture should take into account and adhere to the following recommendations:

- **As a public good, agriculture should not be fully inserted into the market but, rather, should receive public support.** Under overall marketisation and trade liberalisation, governments should fully acknowledge the strategic importance of public goods and services for agriculture and food production. The potential of domestic agriculture should not be undermined by turning it over to global

markets only. Family farming should be promoted and supported by favourable public policy and financial subsidies. The acknowledgement of agriculture as both representing and producing a public good requires respect for and protection of the livelihood security of rural populations.

- **Consolidate the centrality of family farming, and protect peasants from land grabbing and proletarianisation.** This element is closely associated with the acknowledgement of agriculture as a public good. Small-scale agriculture is prone to be diminished or sacrificed for industrialisation in Asian countries. However, secure access to farmland will remain significant for the livelihood security of rural populations in the long term, given the high population density and slow pace of urbanisation. A pro-peasant land policy is essential to safeguard land accessibility to family farming against land grabbing, land concentration and the proletarianisation of family farmers.
- **A prerequisite for the formulation of policies on land and agriculture is the definition and clear understanding of ‘family farming’.** Otherwise, policies under the guise of ‘pro-family farming’ could possibly accelerate the demise of family farming and the bankruptcy of rural populations.
- **Emphasise the food sovereignty of peasants and their contribution to global food security.** Large-scale entrepreneurial modes of farming are often presented as the optimal response to food crises and ensuring food security. However, if given decent support, family farming is able to feed the world with a more efficient use of resources and fewer negative externalities. Policymaking regarding agriculture and family farming should emphasise the food sovereignty of peasants, including access to land, autonomy in the organisation of production, protection of local varieties and, above all, keeping agriculture and the livelihoods of peasants safe from capital invasion and speculation.
- **Construct new and decentralised markets to facilitate food security.** Family farming could provide more safe food for the nutrition and well-being of populations worldwide and, consequently, improved their income and livelihoods if the values of local, traditional agriculture were fully appreciated. However, products from small-scale, traditional agriculture are often less competitive in price than those imported from distant markets. When inserted in such markets, the revenues of agricultural production are largely captured by capital and agribusinesses. New and decentralised markets should be built to promote short-chain circulation and direct connection between producers and consumers.
- **Facilitate the reconstruction of the countryside and comprehensive rural development for the continuity of family farming.** Without development of the countryside and harmonious rural–urban relations, family farming would lose its dynamics and roots. Comprehensive rural development is essential for strengthening family farming by, for instance, facilitating cooperation and self-help groups, developing intermediate technologies to reduce drudgery, improving social services and attracting young people with employment in rural areas. The reconstruction of rural areas, especially for the hollow villages affected by labour migration, requires the government to rethink the importance of rural areas in development and reverse urban-biased paths of development.

- **Acknowledge the multiple values of agriculture, and recognise and boost the values of traditional agriculture.** The most fundamental element in policymaking for the consolidation of family farming is to build awareness on the multiple values of agriculture. These multiple values differ from ‘multi-functionality’, as the latter suggests a pragmatic and utilitarian view of agriculture. The multiple values of agriculture relating to economy, ecological environment and human life derive from the nature of agriculture—a philosophy of life. Those values should be synthesised in the ‘rural’ space. By acknowledging this, family farming, peasant modes of farming and traditional agriculture could no longer be labelled as backward or an obstacle for development but would, rather, be seen as a bringer of prosperity for agriculture, the life of peasants, the countryside and society at large.

REFERENCES

- Altieri, M.A., and V. M. Toledo. 2005. “Natural Resource Management among Small Scale Farmers in Semi-arid Lands: building on traditional knowledge and agroecology.” *Annals of Arid Zone* 44:365–385.
- Apedaile, L.P., and W.S. Zhang. 1989. “Family Farms: Prospects of Agriculture in China and Canada.” In *China’s Rural Development Miracle*, edited by J.W. Longworth, 373–390. Brisbane: Queensland University Press.
- AFA. 2014. “Asian Farmers and IYFF: What is it for us during the International Year of Family Farming.” *Issue Paper* Vol. 6, No. 1. Quezon City, Philippines: Asian Farmers’ Association for Sustainable Rural Development.
- Bauman, Z. 2006 [2004]. *Wasted Lives: Modernity and its Outcasts*. Nanjing: Jiangsu People Publishing, Ltd. (in Chinese).
- Bernstein, H. 2001. “From Peasant Studies to Agrarian Change.” *Journal of Agrarian Change*, 1(1): 1–56.
- Birthal, P.S., A.K. Jha, M.M. Tiongco, and C. Narrod. 2009. “Farm-level Impacts of Vertical Coordination of the Food Supply Chain: evidence from contract farming of milk in India.” *Indian Journal of Agricultural Economy* Vol. 64, No. 3.
- Bray, F. 1986. *The Rice Economies: Technology and development in Asian societies*. Oxford: Blackwell.
- Brookfield, H. 2008. “Family Farms Are Still Around: Time to Invert the Old Agrarian Question.” *Geography Compass* 10: 108–126.
- Chayanov, A.V. 1996 [1925]. *The Theory of Peasant Economy*. Beijing: Central Compilation & Translation Press.
- Chen, M.H. 2013. “Relations between Land Transfer and Family Farms: case of Liaoning Province.” *Journal for Party and Administrative Cadres* 8: 45–50 (in Chinese).
- Chen, Y.Y. 2013. “Rethinking the Rise of Capitalist Family Farms and Differentiation of Operating Bodies in Agriculture: take rice farming as example.” *Open Times* 4: 137–155 (in Chinese).

Dong, Z.H. 2014. "Family Operation and Peasant Tradition in Agricultural Production in and outside of China: agrarian capitalist or peasants' mode of production." *People's Tribune Frontiers* 1: 17–47 (in Chinese).

Edelman, M. 2003. "Transnational peasant and farmer movements and networks." In *Global Civil Society*, edited by M. Kaldor, H. Anheier, and M. Glasius, 185–220. London: Palgrave Macmillan UK. From: Naranjo, S. 2012. "Enabling food sovereignty and a prosperous future for peasants by understanding the factors that marginalise peasants and lead to poverty and hunger." *Agriculture and Human Values* 29: 231–246.

Ellis, F. 2000. *Rural Livelihoods and Diversity in Developing Countries*. New York: Oxford University Press. From: Kitahara, A. 2004. "Agrarian Transformation and Rural Diversity in Globalizing East Asia." *International Journal of Japanese Sociology* 13: 7–21.

Ellis, F. 2006 [1988]. *Peasant Economics: farm households and agrarian development*. Shanghai: Shanghai People's Publishing House.

ESCAP. 2009. *Sustainable Agriculture and Food Security in Asia and the Pacific*. Bangkok: Economic and Social Commission for Asia and the Pacific.

Fan, C., and W. Wang. 2008. "The household as security: strategies of rural-urban migrants in China." In *Migration and Social Protection in China*, edited by I. Neilsen, and R. Smyth, 205–243. Hackensack, NJ: World Scientific.

Fan, S.G., and C. Chan-Kang. 2003. "Is Small Beautiful? Farm Size, Productivity and Poverty in Asian Agriculture." Plenary paper for 2003 International Association of Agricultural Economists, Durban.

FAO Regional Office for Asia and the Pacific. 2013. *Outcome Report of the Regional Dialogue on Family Farming: Sustainable Rural Development and Food Security, 21–22 November 2013*. Bangkok: FAO.

Franco, J. 2011. "The Lie of the Capital: Challenging the grand narratives of global land grabbing." Seminar presented at China's Agricultural University, College of Humanities and Development, Beijing, November 10.

Friedmann, H. 1980. "Household Productions and the National Economy: Concepts for the Analysis of Agrarian Formations." *Journal of Peasant Studies* 7(2): 158–184.

Gao, Q., T.S. Liu, and X.Z. Kong, 2013. "Analyzing Institute of 'Family Farms': features, mechanism and effects." *Economist* 6: 48–56 (in Chinese).

Guttal, S. 2006. "Land and Natural Resource Alienation in Cambodia." *Focus on the Global South*. Accessed February 9, 2016. <<http://focusweb.org/node/1133>>.

Hayami, Y., and V.W. Ruttan. 2000. *International Analysis of Agriculture Development*. Beijing: China Social Science Press.

Hosoya, T., T. Kamino, N. Nakajima et al. 1997. *Futtosuru Chugoku Noson* (Boiling Chinese Villages). Tokyo: Ochanomizu. From: Kitahara, A. 2004. "Agrarian Transformation and Rural Diversity in Globalizing East Asia." *International Journal of Japanese Sociology* 13: 7–21.

Houtart, F., and T.J. Wen (eds). 2013. *Peasant's Agriculture in Asia*. Panama: Ruth Casa Editorial. Accessed February 9, 2016.

<<http://biblioteca.clacso.org.ar/clacso/sur-sur/20130705102154/PeasantsAgricultureinAsia.pdf>>.

- Huang, P. 1990. *The Peasant Family and Rural Development in the Yangzi Delta, 1350-1988*. Redwood City, CA: Stanford University Press.
- Huang, P.C. 2004. *Peasant Economy and Social Change in North China*. Beijing: Zhonghua Book Company.
- Huang, P. 2010a. "Small farms and vertical integration in China's new era: Dragon-head enterprises or cooperative organizations?" *China Rural Studies* 8: 11–30 (in Chinese).
- Huang, P. 2010b. *China's Hidden Agricultural Revolution*. Beijing: Law Press.
- Huang, P. 2012a. "Basic Economic Unit in Past and Present China: Family or individual?" *People's Tribune Frontiers* 3: 76–92 (in Chinese).
- Huang, P. 2012b. "Unequal Trade between Small Households and Big Commercial Capital: Features of China's modern agriculture." *Open Times* 3: 89–99 (in Chinese).
- Huang, P., Y. Gao, and Y.S. Peng. 2012. "Capitalization without Proletarianization: Development of Chinese Agriculture." *Open Times* 3: 10–30 (in Chinese).
- IFAD. 2001. *Rural Poverty Report 2001: the challenge of ending rural poverty*. Oxford: Oxford University Press.
- ISC. 2007. *Nyéleni 2007—Forum for food sovereignty: Synthesis report*. Sélingué, Mali: International Steering Committee of the Forum for Food Sovereignty. From: Naranjo, S. 2012. "Enabling food sovereignty and a prosperous future for peasants by understanding the factors that marginalise peasants and lead to poverty and hunger." *Agriculture and Human Values* 29: 231–246.
- Ishida, H. 1985. *Taiwan Kanjin Sonraku no Shakai Keizai Kozo* (Socio-economic Structure of Taiwan Chinese Villages). Osaka: Kansai University Press. From: Kitahara, A. 2004. "Agrarian Transformation and Rural Diversity in Globalizing East Asia." *International Journal of Japanese Sociology* 13: 7–21.
- Johns, T., B. Powell, P. Maundub, and P.B. Eyzaguirre. 2013. "Agricultural Biodiversity as a Link between Traditional Food Systems and Contemporary Development, Social Integrity and Ecological Health." *Journal of the Science of Food and Agriculture* 93: 3433–3442.
- Jokisch, B. 2002. "Migration and Agricultural Change: the case of smaller holder agriculture in highland Ecuador." *Human Ecology* 30: 523–550.
- Kawagoe, T. 1999. "Agricultural land reform in postwar Japan: Experiences and issues." *Policy Working Paper* No. 2111. Washington, DC: World Bank.
- Kitahara, A. 2004. "Agrarian Transformation and Rural Diversity in Globalizing East Asia." *International Journal of Japanese Sociology* 13: 7–21.
- Leisa India. 2013. "Family Farming: A Way of Life." *Leisa India* Vol. 15, No.4. Accessed February 9, 2016. <<http://www.agriculturesnetwork.org/magazines/india/family-farming>>.
- Leisa India. 2014. "Family Farmers breaking out of poverty." *Leisa India* Vol. 16, No.2. Accessed February 9, 2016. <<http://www.agriculturesnetwork.org/magazines/india/breaking-poverty>>.
- Li, L.H., and M. Tonts. 2014. "The Impacts of Temporary Labour Migration on Farming Systems of the Loess Plateau, Gansu Province, China." *Population, Space and Place* 20: 316–332.

- Liang, Q.C. 2012. *Liang Qichao on History of Chinese Culture*. Beijing: The Commercial Press (in Chinese).
- Lipton, M. 1977. *Why Poor People Stay Poor: A study of urban bias in world development*. London: Maurice Temple Smith Ltd.
- Lipton, M. 2004. "Crop Science, Poverty, and the Family in a Globalising World." Paper for Plenary Session at the Brisbane International Crop Science Conference.
- Lipton, M. 2005. "The Family Farm in a Globalizing World: The Role of Crop Science in Alleviating Poverty." *2020 Discussion Paper No.4*. Washington, DC: International Food Policy Research Institute.
- Little, P.D., and M. Watts (eds). 1994. *Living Under Contract: Contract Farming and Agrarian Transformation in Sub-Saharan Africa*. Madison, WI: University of Wisconsin Press. From: Zhang, Q.F. 2012. "The Political Economy of Contract Farming in China's Agrarian Transition." *Journal of Agrarian Change* 12(4): 460–483.
- Lowder, S.K., J. Skoet, and S. Singh. 2014. "What do we really know about the number and distribution of farms and family farms in the world? Background paper for The State of Food and Agriculture." *ESA Working Paper No. 14-02*. Rome: FAO.
- Lukasiewicz, A. 2011. "Migration and gender identity in the rural Philippines: households with farming wives and migrant husbands." *Critical Asian Studies* 43: 577–593.
- Mai, X.N. 2008. Peasants Have Lost Land. *Vietnamese Agriculture Journal*. From: Houtart, F., and T.J. Wen T.J (eds). 2013. *Peasant's Agriculture in Asia*. Panama: Ruth Casa Editorial. Accessed February 9, 2016.
<<http://biblioteca.clacso.org.ar/clacso/sur-sur/20130705102154/PeasantsAgricultureinAsia.pdf>>
- Maier, L., and M. Shobayashi. 2001. *Multifunctionality: Towards an Analytical Framework*. Paris: OECD Publications Service.
- Miyata, S., N. Minot, and D. Hu, 2009. "Impact of Contract Farming on Income: Linking Small Farmers, Packers, and Supermarkets in China." *World Development* 37(11): 1781–1790.
- Nagayets, O. 2005. "Small Farms: Current Status and Key Trends." Information Brief. prepared for the Future of Small Farms Research Workshop, Wye College, June 26–29, 2005. Accessed February 9, 2016.
<<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.146.4632&rep=rep1&type=pdf>>.
- Netting, R.M. 1993. *Smallholders, Householders: Farm Families and the Ecology of Intensive, Sustainable Agriculture*. Redwood City, CA: Stanford University Press.
- Nguyen, T.D. 2010. "Evaluation of the Impacts of the Industrialisation Process on Households' Livelihood. The Strategy in Hung Yen Province, Northern Vietnam." Doctoral Thesis. From: Houtart, F., and T.J. Wen (eds). 2013. *Peasant's Agriculture in Asia*, 145–149. Panama: Ruth Casa Editorial. Accessed February 9, 2016.
<<http://biblioteca.clacso.org.ar/clacso/sur-sur/20130705102154/PeasantsAgricultureinAsia.pdf>>.
- Nicholson, P. 2009. "Interview: Paul Nicholson, La Via Campesina." *Journal of Peasant Studies* 36(3): 676–682. From: Naranjo, S. 2012. "Enabling food sovereignty and a prosperous future for peasants by understanding the factors that marginalise peasants and lead to poverty and hunger." *Agriculture and Human Values* 29: 231–246.

- Niu, R. 2006. "Management and development of industrialized agriculture in China: Observations and comments." *Issues in Agricultural Economy* 3: 8–15 (in Chinese).
- Obanil, C. 2012. "Land Grabs or Large Scale Land Investments? Protecting Farmers' Rights to Land." *AFA Issue Paper* Vol. 4, No. 1.
- Peng, J.S. 2011. "Essences of Agrarian Culture and its Implications for Modern Agriculture." *Northwest Journal of Ethnography* 1: 145–150 (in Chinese).
- PACS. 2007. *Programme: Land use and ownership in India*. New Delhi: Poorest Areas Civil Society.
- Pretty, J.N., A.D. Noble, D. Bossio et al. 2006. "Resource-Conserving Agriculture Increases Yields in Developing Countries." *Environment, Science & Technology* 40: 1114–1119.
- Schultz, T. 1999 [1964]. *Transforming Traditional Agriculture*. Beijing: The Commercial Press.
- Scott, J. 2001 [1977]. *The Moral Economy of the Peasant: Rebellion and subsistence in Southeast Asia*. Nanjing: Yilin Press.
- Shanin, T. 1971. "Peasantry: Delineation of a Sociological Concept and a Field of Study." *European Journal of Sociology* XII: 289–300.
- Shogenji, S., N. Taniguchi, N. Fujita, and H. Yagi. 1993. *Agricultural Economics*. Tokyo: University of Tokyo Press (in Japanese).
- Soda, O. 2003. *Philosophy of Agriculture*. Beijing: Press of Renmin University in China.
- Tran, D.V. 2003. "Culture, Environment and Farming Systems in Vietnam's Northern Mountain Region." *Southeast Asian Studies* Vol. 41, No. 2.
- van der Ploeg, J.D. 2008. *The New Peasantries: Struggles for autonomy and sustainability in an era of empire and globalization*. London: Earthscan.
- van der Ploeg, J.D., and J.Z. Ye. 2010. "Multiple Job Holding in Rural Villages and the Chinese Road to Development." *The Journal of Peasant Studies* 37(3): 513–530.
- Wang, L.X. 2009. "Theory and Reality of Agrarian Capitalist: agricultural development in Punjab of India during Green Revolution." *Social Sciences in China* 5: 189–203 (in Chinese).
- Wilson, J. 1986. "The political economy of contract farming." *Review of Radical Political Economics* 18(4): 47–70. From: Zhang, Q.F. 2012. "The Political Economy of Contract Farming in China's Agrarian Transition." *Journal of Agrarian Change* 12(4): 460–483.
- Wolf, E. 1955. "Types of Latin American Peasantry: A Preliminary Discussion." *American Anthropologist* 57: 452–471.
- World Bank. 2004. *Partnerships in development: Progress in the fight against poverty*. Washington, DC: World Bank.
- World Bank. 2008. "World Bank updates poverty estimates for the developing world." Accessed February 9, 2016.
<<http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTRESEARCH/0,,contentMDK:21882162~pagePK:64165401~piPK:64165026~theSitePK:469382,00.html>>.
- Ye, J.Z., and H.F. Wu. 2008. *Dancing Solo: the left-behind women in rural China*. Beijing: Social Science Academic Press.

- Ye, J.Z., and C.Z. He. 2008. *Lonely Sunset: the left-behind elderly in rural China*. Beijing: Social Science Academic Press.
- Ye, J.Z., J. Rao, and H.F. Wu. 2010. "Crossing the River by Feeling the Stones': rural development in China." *Rivista di Economia Agraria* LXV, No. 2, June, 261–294.
- Yin, X.Q. 2003. "Peasant Economy and Orderly Operation of Traditional Agrarian Society." *Jiangxi Social Sciences* 10: 77–80 (in Chinese).
- Zhang, Q.F. 2012. "The Political Economy of Contract Farming in China's Agrarian Transition." *Journal of Agrarian Change* 12(4): 460–483.
- Zhang, Q.F., and J.A. Donaldson. 2010. "From Peasants to Farmers: Peasant Differentiation, Labor Regimes, and Land-Rights Institutions in China's Agrarian Transition." *Politics & Society* 38: 458–489.
- Zhang, Y.L. 2011. "Agriculture and Rural Society after 'Modernization' in East Asia: Cases of Japan, Korea and Taiwan and Their Historical Implications." *Academic Journal of Nanjing Agricultural University* 11(3): 1–8 (in Chinese).

NOTES

3. From a Chinese history book, *The Book of Rites on Order*.
4. From a Chinese history book, *Rites of Zhou*.
5. A Japanese unit of measurement, one *chōbu* is about one hectare.
6. Japanese Statistics of Agricultural Operation: sub-statistics on individual operation in 2012 in Japan.
7. Information from a moderator of a Chinese organisation for community-supported agriculture.
8. Online news. <<http://xinnongren.cn/Default.html>> (accessed September 20, 2014).
9. *Japanese White Paper on Agriculture* 2013, p.218.
10. *Japanese White Paper on Agriculture* 2013, p.66.
11. *The No. 1 Document of the Chinese Central Government*. <<http://www.moa.gov.cn/ztl/yhwj2013/>> (accessed January 26, 2016).
12. China's Ministry of Agriculture. Instruction on Promoting Development of Family Farms. <http://www.moa.gov.cn/zwl/m/zcfg/nybgz/201403/t20140311_3809883.htm> (accessed January 26, 2016).
13. Survey results on development of 'family farms' in China by the Ministry of Agriculture. <http://sd.ifeng.com/zt/sdjtn/jdjtnc/detail_2013_06/21/919015_0.shtml> (accessed August 20, 2014).
14. There is also a type of largeholding farmer in China who could not be classified as performing capitalist farming in all respects. Some rural households whose family members had all migrated to the city would entrust their farmland to their village leader instead of abandoning it. This transfer features no contract and no requirement for payment, usually only small amounts of grain. This village leader sometimes needs to tend to several households' farmlands; therefore, they are comparatively large in scale. Contrary to capitalist family farming, this largeholding farming is not for profit.
15. Land Matrix. <<http://landmatrix.org/en/get---the---idea/agricultural---drivers/>> (accessed February 2, 2016).
16. Information consolidated from Franco (2011).
17. "Forty-seven million Left-behind Women in China enduring solitude and loneliness." <<http://news.qq.com/a/20101227/001310.htm>> (accessed February 2, 2016).
18. ChinaNews. "Nearly Fifty Million Left-behind Elderly in Rural China and Problems of Carelessness Outstand." <<http://www.chinanews.com/gn/2013/09---20/5302461.shtml>> (accessed February 2, 2016).
19. Xinhua News. "Women's Federation of China: Amount of Left-behind Children in China exceed 60 million." <http://news.xinhuanet.com/politics/2013---05/10/c_115720450.htm> (accessed February 2, 2016).
20. Xinhua News. "Monthly Income of Chinese Migrant workers increased by 10 per cent in Last Year." <http://news.xinhuanet.com/fortune/2013---03/01/c_114857083.htm> (accessed February 2, 2016).
21. *China's Total Population and Structural Changes in 2011*, issued by the National Bureau of Statistics of China.
22. Family members who mainly participate in agriculture and were active in agriculture during the previous year of the survey.
23. 農業就業者の動向 (Trend of Employment in Agriculture) (in Japanese). <http://www.maff.go.jp/j/wpaper/w_maff/h22/pdf/z_2_3_2.pdf#search='20%E5%B9%B4+%E6%97%A5%E6'> (accessed February 2, 2016).



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