

Feminisation and Ageing of Agriculture and Changes in Farmers' Livelihood Strategies in the mountains of southwestern China

Yiching Song, Senior Research Fellow, Centre for Chinese Agricultural Policy, Chinese Academy of Science, yiching2002ch@gmail.com

Ronnie Vernooy, Senior Programme Specialist Rural Poverty and Environment, IDRC

Predominantly male migration to cities in search of non-farming income and other opportunities has been one of the biggest changes in rural China in the past few decades (Song and Vernooy 2010a). This migration is affecting most farm households, especially the poorer ones in remote mountain villages.

This paper, based on field research carried out jointly in 2007 and 2008 in Guangxi, Guizhou, and Yunnan provinces (Map below), shows how migration over the preceding two decades resulted in the increasing feminisation and ageing of agriculture, and examines the related changes in farmers' livelihood strategies. Women and old people have become the main agricultural labour force in most if not all households and communities, playing key roles in local farming and livelihood systems; yet they continue to have limited

control over necessary resources (i.e., land) and poor access to supporting services such as credit, extension, and education (Song and Vernooy 2010b).

The findings in this paper are based on household and village level surveys carried out in 27 villages, complemented by qualitative methods (informant interviews, individual and group discussions, participant observation, and in-depth case studies). The research was carried out by four research teams from the Guizhou Academy of Agricultural Sciences, Yunnan University, the Center for Biodiversity and Indigenous Knowledge, and the Center for Chinese Agricultural Policy.

Changes in population trends and farmers' income sources

Examination of population trends indicated that from 1995 to 2007 the study area had hardly any increase in total population and labour force; some remote villages even experienced a decrease in population. One remote mountain village in Guangxi ceased to exist because of the migration of young people and the death of old people. The trend in the six researched villages in Guizhou is illustrative: The average household size decreased from 4.92 persons in 1995 to 4.36 persons in 2007.

Per capita annual income increased in all 27 studied villages in the three provinces. In most cases income doubled, and in some it even tripled between 1995

Guizhou, Yunnan and Guangxi provinces



Table 1: **Per capita income increase at the research sites (RMB)^a**

Research sites	1995	2000	2007
Guizhou	550	1,083	1,708
Western Yunnan	592	723	1,025
Northeastern Yunnan			1,365
Guangxi	822	1,083	1,552
National average	1,578	2,253	4,140

^a 100 RMB = US\$ 13.4 in 2007

and 2007. At the same time, nationwide farmers' average per capita income increased about three times (Table 1). This means that although progress has been made in the southwest, the region still lags behind.

About 23 per cent of households surveyed were engaging only in agricultural production, while about 60 per cent of the households were investing at least half of their labour in non-agricultural activities.

In all 27 villages, the income structure changed significantly during the study period. The proportion of income from migration (remittances) increased more than two times, while the share of both crop and livestock income decreased. The average area under production was very small. In 2007 remittances accounted for 40 to 45 per cent of household incomes. Crop income, which represented around 50 per cent of total income in 1995, accounted for about one-third in 2007.

Parallel to the trends described above, the income gap among households became larger within and across villages (in the same area), among counties (in the same province), and among the three provinces. At the county level in Guangxi, for example (in a comparison of four counties), the highest incomes in 2007 were 6 to 15 times as high as the lowest incomes, while in the past differences were more moderate. The variation among counties in terms of highest and lowest total income had also greatly increased; in some cases the total in one county was double that of the total in another in 2007. The income sources that contribute to these gaps are remittances, work in local industries, and other non-farming income generation activities. Some households and communities are better able to make use of these opportunities than others, and this may lead to more pronounced income differentiation.

Out-migration and the feminisation and ageing of agriculture

Between 1995 and 2007, in the 27 villages the total number of migrants doubled. However, fewer women

than men migrated, and migration of women is also more recent than that of men. One of the main reasons for out-migration was limitations in land tenure and related income generating opportunities.

The data indicate that at the end of the study period, on average about 76 per cent of all people who were actively engaged in agriculture throughout the year were women. Observations in the villages supported these data; men were virtually absent from the fields, forests, paths, and streets. In 2007 the average age of the farming population (women and men combined) ranged from 45 to 50 years. The average age of the migrants was around 20 years younger than the farming population. Thus, married women and older people had become the main agricultural labourers throughout the year. In some cases, male migrants returned home for short periods to help out at harvesting time.

While the majority of rural migrant women were young and unmarried, the feminisation of agriculture concerned above all married rural women who stayed behind in agriculture while their husbands went away to work. It also concerned young migrant women who often, after some years of work in a factory, returned home to marry and then stayed in the village.

Labour investment and decision making are two different dimensions of agricultural production that can be used to measure an individual's control over production. Generally, women were investing more labour in agricultural production than other household members. This was evident in production of grain crops, poultry, pigs and cattle, in which women were the principle labourers in more than 60 per cent of the households. For the grain crops, in nearly 70 per cent of the households women played key roles, and often more important roles than men. Men engaged more in cash crop production and goat raising. In both crop and livestock farming, women's labour investment and decision-making in agricultural production had a positive



correlation. This means that women had control over their labour and the resources they used. Men tended to participate in agricultural production seasonally (e.g., around plowing or harvesting time) and to engage more in production activities directly connected with marketing, such as cassava growing and pig raising. They tended to work in 'bursts', while women were busy every day from dawn to dusk. Despite women's increasingly dominant roles in the division of labour and decision making in agriculture, they still faced difficulties in access to technology, credit, and market information owing to gender-biased policies and operations on the one hand, and enduring patriarchal attitudes and behaviour on the other (which persisted even when men were absent).

Farmers' livelihood patterns

Based on the survey data and qualitative studies (and also drawing on the in-depth field research of Wang [2007] in Guangxi), we identified four main livelihood patterns emerging in the villages. Based on our knowledge of the province at large, we believe these four patterns are more broadly representative of rural areas in Guangxi.

- **Subsistence farming in transition** is the dominant pattern, applying to 70–75 per cent of the households in the research area. In these households, men are engaged in non-farming activities (actively searching for new income opportunities), while women undertake most of the farming, maintaining a diversified subsistence agriculture. Some of these household members (both men and women) are planning to migrate to the city; some are just waiting to see.
- **Traditional subsistence farming** is the livelihood pattern of 10–15 per cent of the households. They stay on their land and depend primarily on farming. Most are extremely poor. These households include those who are ill and older people with little non-farming income. The gender division of labour and decision-making remains traditional. Men do the farm work while women do the domestic and reproductive work.
- **Professional farming** is a pattern that has emerged in the past decade, referring to household specialisation in certain agricultural commodities (crops and livestock) on a relatively large scale, with land often rented from relatives and other villagers. These specialized households represent about 5–10 per cent of the total, depending on the economic situation in their communities. The better-off areas

tend to be more specialised. During the past decade more and more women heads of household have been actively pursuing this new kind of agriculture.

- **Non-farm livelihood** applies to 5–10 per cent of all households. Most of these households consist of young couples who have migrated to urban areas and taken up non-farming professions, leaving their land in the care of relatives. However, they are still considered rural households and hold a land title and a residency permit ('hukou') in their village of origin. They maintain ties to the land and to the village, perhaps as a sort of 'insurance', given that the life of migrants is highly uncertain. The economic slowdown of 2008–2009 forced many migrants to return home, at least temporarily, and the future prospects for regular off-farm employment are not clear.

Summary and key findings

The three key findings of the research can be summarised as follows.

- Subsistence farming in China is experiencing transformation. Agricultural income is generally declining and represents a lower percentage of rural household income. Farmers are losing interest in farming. Agricultural labour is ageing and becoming increasingly feminised; women and old people have become the main agriculturists.
- Under these changes, gender inequalities are deepening in terms of access to resources and opportunities, reinforced by existing conservative cultural norms and institutional systems, and intensified by the impact of external forces that include globalisation and commercialisation.
- Gender-neutral policies (e.g., for land tenure) and lack of gender-sensitive support services (e.g., extension and credit) have undermined women's opportunities for equal employment and benefits from economic growth.

References

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