

Research Paper

**CHANGES IN THE ROLE OF RURAL WOMEN
UNDER THE HOUSEHOLD RESPONSIBILITY SYSTEM:
A CASE STUDY OF THE IMPACT
OF AGRARIAN REFORM AND RURAL INDUSTRIALIZATION
IN DONGYAO VILLAGE, HEBEI PROVINCE, NORTH CHINA**

by

Zongmin Li



**LAND
TENURE
CENTER**

An Institute for Research and Education
on Social Structure, Rural Institutions,
Resource Use and Development

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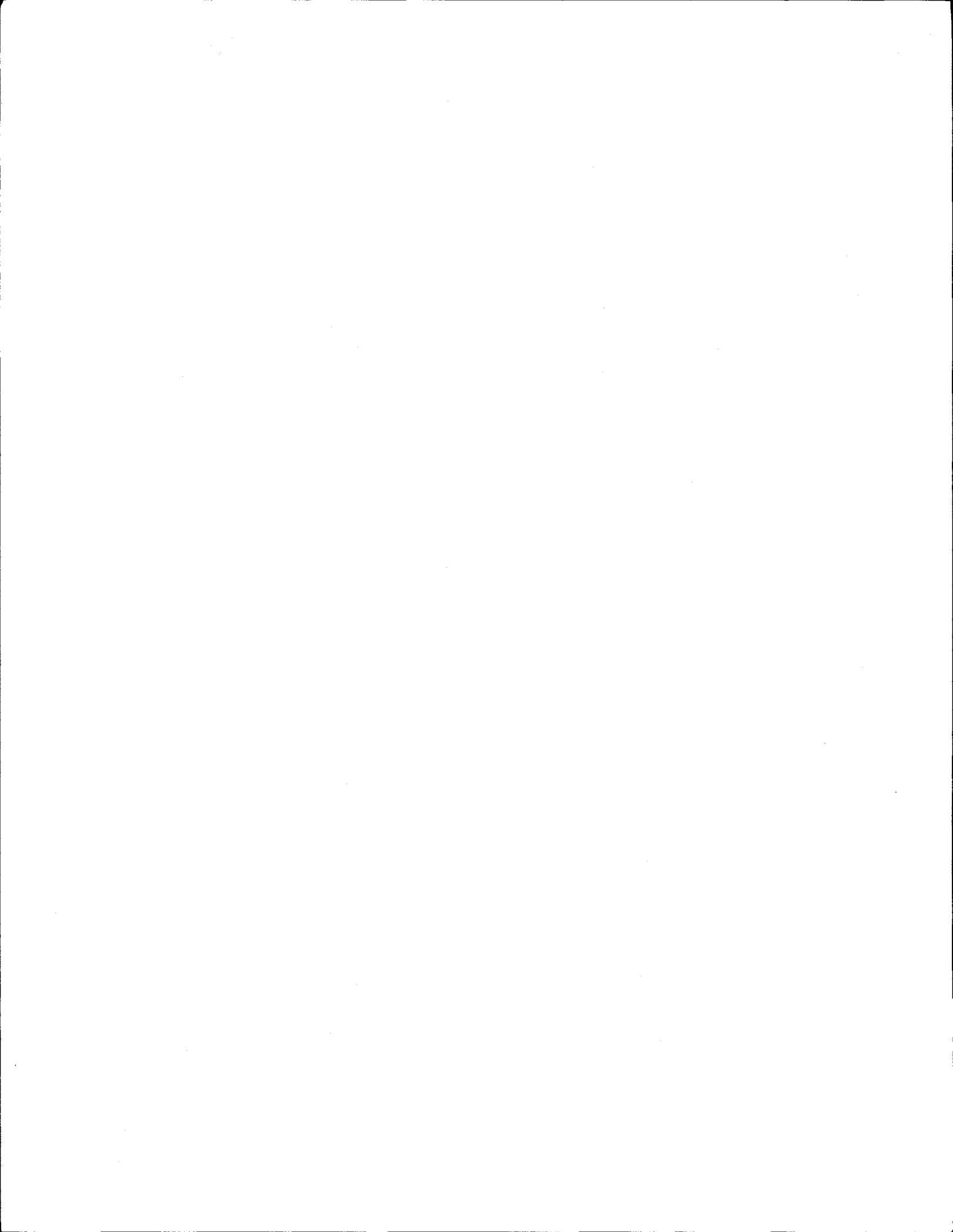
Zongmin Li

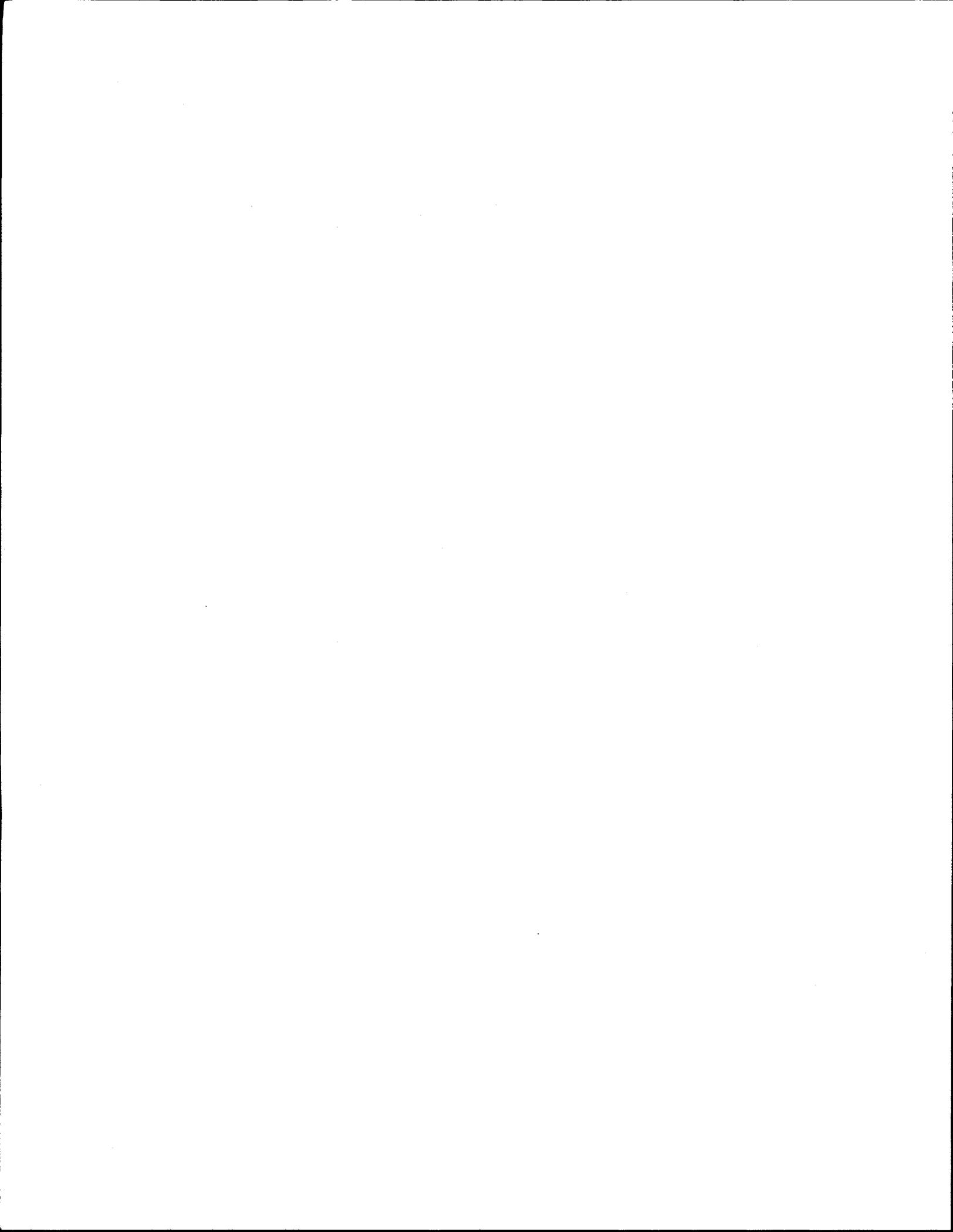
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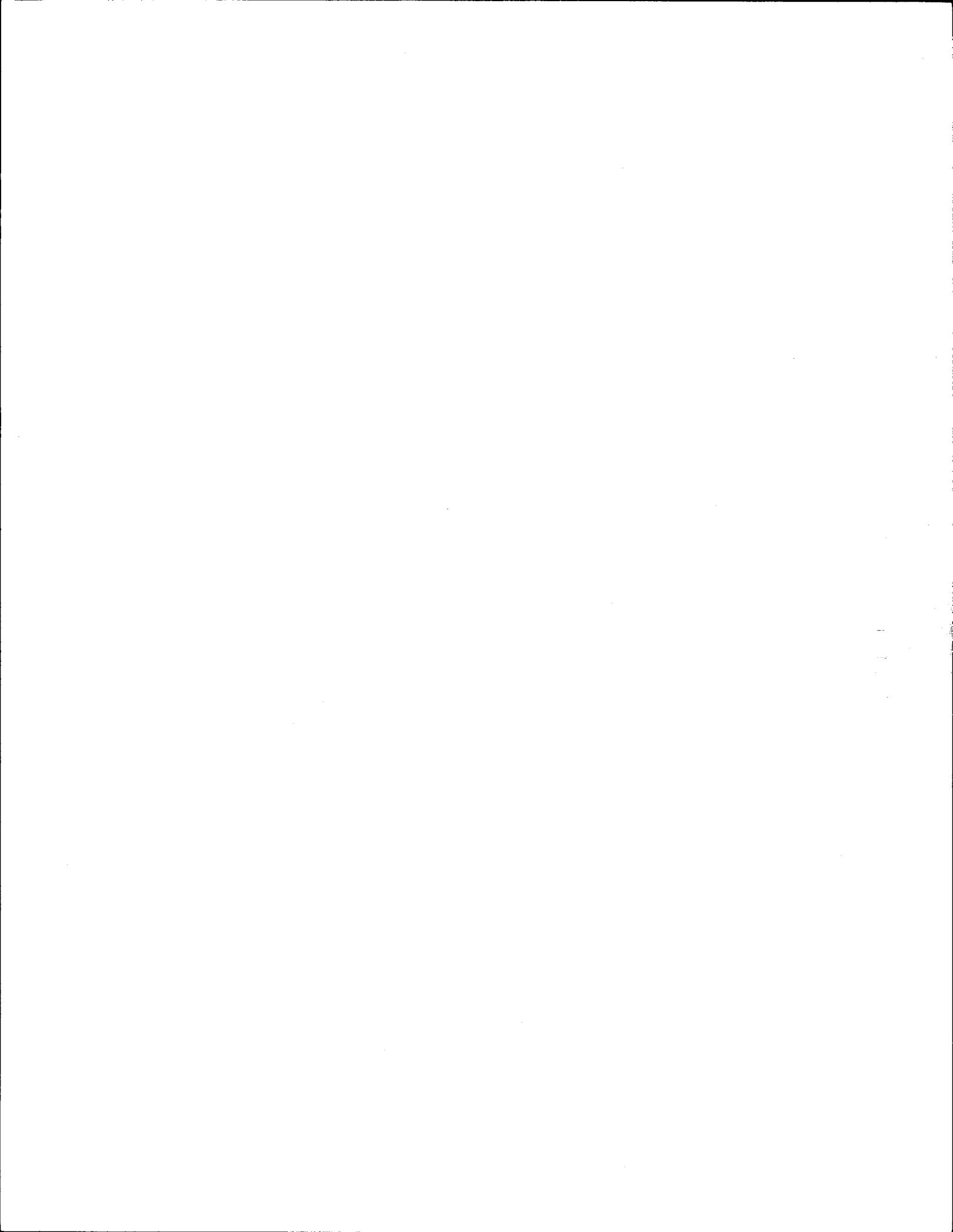
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CONTENTS

	<u>Page</u>
Acknowledgments	v
1. Introduction	1
1.1 The research question	1
1.2 Research methods	2
1.3 The Dongyao data	3
2. Dongyao Village	5
2.1 Agroclimatic and physical setting	5
2.2 Population and land use	6
2.3 The organization of village agriculture: the change from the commune system to the household responsibility system	9
3. The Social and Economic Condition of the Family	13
3.1 The basic situation of the family	13
3.2 Access to family land	22
3.3 Income of family members	25
3.4 Assessment of education by family role and occupation	26
4. The Household Assumes Responsibility for Production	29
4.1 The 1981 land reform and household decision-making	29
4.2 The impact on women's work and lives	31
5. Rural Industrialization and Women's Contribution	35
5.1 Industrialization in Dongyao	35
5.2 The impact on women's work and lives	36
6. Women's Changing Role in Agriculture	37
7. Problems Facing Women	43
7.1 The need for better community services	44
7.2 Women's educational needs	45
7.3 Creating better work opportunities and conditions for women	46
Bibliography	47
Appendix 1 Dongyao Data, 1991	49
Appendix 2 Basic Statistics of Dongyao Data	53



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1. INTRODUCTION

1.1 THE RESEARCH QUESTION

China has a long tradition of male control over resources and decision-making. That tradition has been especially pervasive in the vast rural areas. Since 1949, one of the major objectives of China's social and economic policies has been to achieve equal rights for both sexes. Government policy has advocated increased work outside the household by rural women. Economic independence for women was viewed as a prerequisite to independence in other spheres of life, and the government has paid particular attention to ensuring that laws and regulations relating to sexual equality are enforced.

In the rural areas, where about 80 percent of China's population lives, the female work force totals 180 million today (*Statistics on Chinese Women*), and female labor has been increasingly important in agriculture. Since the establishment of the rural communes in the late 1950s, rural women have worked alongside men in the collective farms cultivating the land and raising livestock. It was estimated that in the late 1970s, 80 percent of the rural female labor force worked in collective agriculture and that they composed at least 40 percent of the overall collective work force (*ibid.*). With the involvement of the state, through legal protections, and by their own actions, women have enhanced their political, economic, and social status over the past four decades.

At the end of 1970s, the People's Republic of China began a reform process that brought its system of agricultural communes to an end. The large units of production were broken up, and management of and income from land were distributed to the farm households in a smallholder production system (Bruce 1989; Zhou and Liu 1989). This was the household responsibility system (HRS), a system that developed from the Chinese farmers' innovations once public policy allowed for these. The purpose of the HRS was to reduce the size of the basic unit of production, thereby linking rewards more directly to performance. Land was distributed to households in order to encourage greater productivity and to increase the incomes of farmers. Landownership, however, remained in the hands of the collective or the village.

As economic circumstances changed, so did the physical and psychological situation of rural women. Women have benefitted from the transition to the HRS in that they have shared in the increased prosperity of most farm households. Questions, though, remain: to what extent have women benefitted from the improved economic position of farm households? Have there been negative as well as positive impacts?

My research has focused on the change in intrahousehold resource allocation based on gender, particularly the allocation of family labor. Women have become an increasingly important factor in a family's economic life as men have become involved in nonagricultural

activities, and women are replacing the men in the fields as the main source of labor in agriculture.

Many foreign scholars have studied related problems from different perspectives. There have been investigations of the issue of women's work in agriculture, their domestic sideline activities, and the sexual division of labor since the establishment of the household responsibility system (Croll 1983, 1985); the impact of China's rural reform on women's status (Qian and Mei 1987); women's participation in productive labor outside the household (Judd 1990); the comparative study of the process by which women's roles change (Kelkar 1987); and the impact on women's status of the change of kinship relationships since the rural reform (Bao 1989).

Chinese scholars and research institutions have also studied these issues, including the change of the relationships in rural families and marriage (Institute of Sociology of the Chinese Academy of Social Science 1989); the changes in rural women's occupations (Institute for Rural Development of the Chinese Academy of Social Science 1988); and rural women's education, training in production skills, health care, and family planning (All Women's Federation of China, since 1978). Also, some official and nongovernmental women's organizations and institutes have been established since the Chinese reform.

What researchers have not yet done is to explore the organic link between farmers and the change in the land tenure system. This link is fundamental to the design and implementation of an appropriate land tenure system, which, in turn, is vital to the development of agriculture and to the maintenance of women's efficiency in farming. Due to the tremendous internal differences in population, geography, economy, society, language, and culture in the vast countryside of China, a sound analysis of these issues must begin with careful local studies. Therefore, this research was framed as a case study of families in a single village, though it is hoped that it may be possible to expand such inquiry to other villages in different parts of China.

1.2 RESEARCH METHODS

These issues were explored in wide-ranging discussions with experts and research institutes in Beijing between January and March 1992. I consulted experts at the Research Center of Rural Economy (RCRE) of the Ministry of Agriculture, the Development Research Center (DRC) of the State Council, the Research Office of the State Council, the Sociology Institute and the Institute of Agricultural Development of the Chinese Academy of Social Science, and the Institute of the All Women's Federation of China.

We reviewed my plan for a case study of one village in China. I would choose a county and village in which agriculture was still important but where village and township industries have developed in recent years. Twenty families would be selected as study units. An investigation would be made comparing the collective production system before 1978 with

the HRS thereafter. Comparison of the changes in the twenty families in the same village in the two periods would permit analysis of the relation between women, land tenure, and production structures under the old and new systems.

I chose Yutian County, Hebei Province, as the locale for the case study. Yutian is not strictly representative because it has been a focus of experimental programs in rural reform since 1987 and farmers there have better access to services and credit. Yet, Yutian highlights issues that will be faced by women elsewhere in China. Given the brief time available for the case study, there were practical advantages to continuing my work in that location for I had carried out research there in 1987.

On arriving in Yutian County, I first contacted the Office of Rural Reform Experimental Zone, and then discussed my plans and the issues with the Agricultural Committee, the Land Administration Office, the Archives, the Statistical Office, and the Local Women's Federation. I then collected data at the county and village level using documentary research and key informant interviews. At the county and township level, I reviewed documents (such as county annals) and interviewed key informants. I then visited three villages: Tangzhuang Village, Xiaochenu Village, and Dongyao Village. Dongyao seemed most representative of the area, based on my discussions at both county and township level, and was chosen for the case study.

1.3 THE DONGYAO DATA

The basic data collected on individuals and households during the visit to Dongyao are presented in appendix 1. The study accumulated data on 123 individuals from 23 households, including 64 women, 37 of whom were members of the labor force. The types of information gathered on individuals and households are presented in table 1.1, and the basic statistics from the Dongyao data are presented in appendix 2.

TABLE 1.1
The Dongyao data

INDIVIDUALS	HOUSEHOLDS
Sex	Household size
Age	No. of generations
Role in the family	Land size
Education	No. of parcels
Years in school	Cash crop input and output
Occupation	Wheat input and output
Nonagricultural income	Corn input and output
Daily working hours	

2. DONGYAO VILLAGE

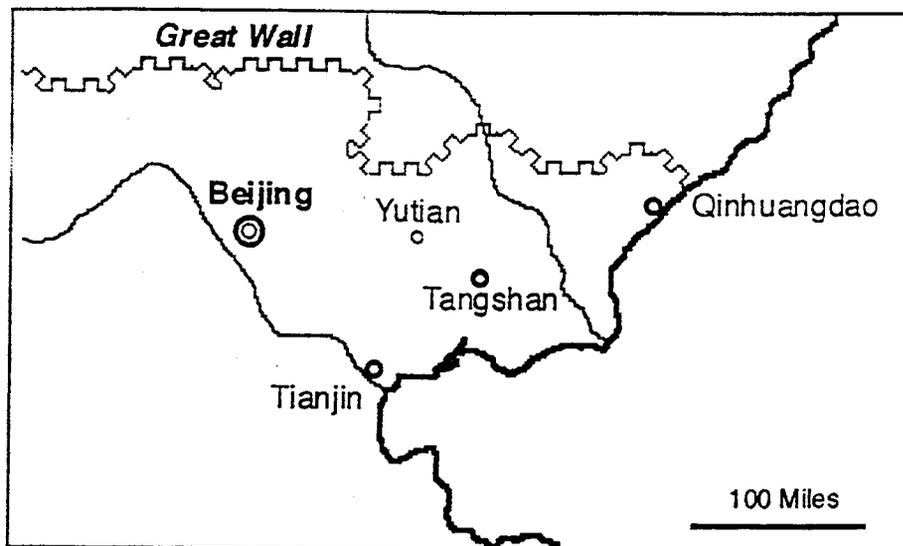
2.1 SETTING

Dongyao Village is located about 4 kilometers from Yutian Town, just outside the town gate. Yutian is in eastern Hebei Province and lies at the southern end of the Yian Mountains. Dongyao has transportation links, including a railway line, to Beijing and Qin-Huang-Dao.

The area has an east monsoon and continental climate in the north temperate zone, with an average annual temperature of 11.2°C (reaching as high as 40.4°C and as low as -22.9°C). It has a poor climate for agriculture, with a frost-free period of only 190 days a year. There is a total of 693.1 millimeters of rainfall annually (concentrated from June to August), and plentiful sunshine (2,589.1 hours each year). Spring is often too dry, and summer often too wet, leading to disappointing harvests. The soils in Yutian are primarily yellow and black. Yutian Town nearby provides facilities for Dongyao's agriculture and industries.

FIGURE 2.1

Geographical location of Yutian Town



2.2 POPULATION AND LAND USE

Dongyao Village had a total population of 1,014 in 1992 at the time of the research, making up 245 households. The labor force was 510 persons (half male and half female, including those in industry and construction as well as in agriculture).

The layout of the village is simple. There is a central residential area, with small gardens in some yards. Near this section are larger garden plots and, beyond these, irrigated and nonirrigated farmland. For a more detailed breakdown of the locality, see the village map (figure 2.2) and the land use pie chart (figure 2.3).

The total land area is 2,512.4 mu.¹ The cultivated area is 1,875 mu: 175.3 mu in irrigated rice, 1,483.6 mu in irrigated wheat and corn, 201.3 mu in irrigated garden crops, and 14.8 mu in nonirrigated tracts. The residential and industrial area is 443.1 mu: 333.6 mu for residential, 19.0 mu for threshing ground, 85.7 mu for industrial, and 4 mu for the cemeteries. Roads account for 96.5 mu; the area under water, 56.3 mu (33.9 mu in hollows and 22.4 mu in ditches), and the unutilized area, 41.5 mu. The area of unutilized land has declined greatly since 1949, as has cultivated land per capita, from 3.5 mu in 1949 to 2.5 mu in 1958 and to 1.8 mu in 1991. In 1949, the average farm size for an average household of 4.14 persons was 14.49 mu.

Since 1982, Dongyao has become a site of surplus labor and rapidly shrinking farms. Over the 1982-91 period, population increased by 8.8 percent while total cultivated area (2,023 mu) declined by 148 mu (20 mu went to village industries, 18 mu to township industries, and 110 mu to county industries).

¹ A Chinese measurement of area, 1 mu is equivalent to 1/15 hectare.

FIGURE 2.2
Map of Dongyao's land use

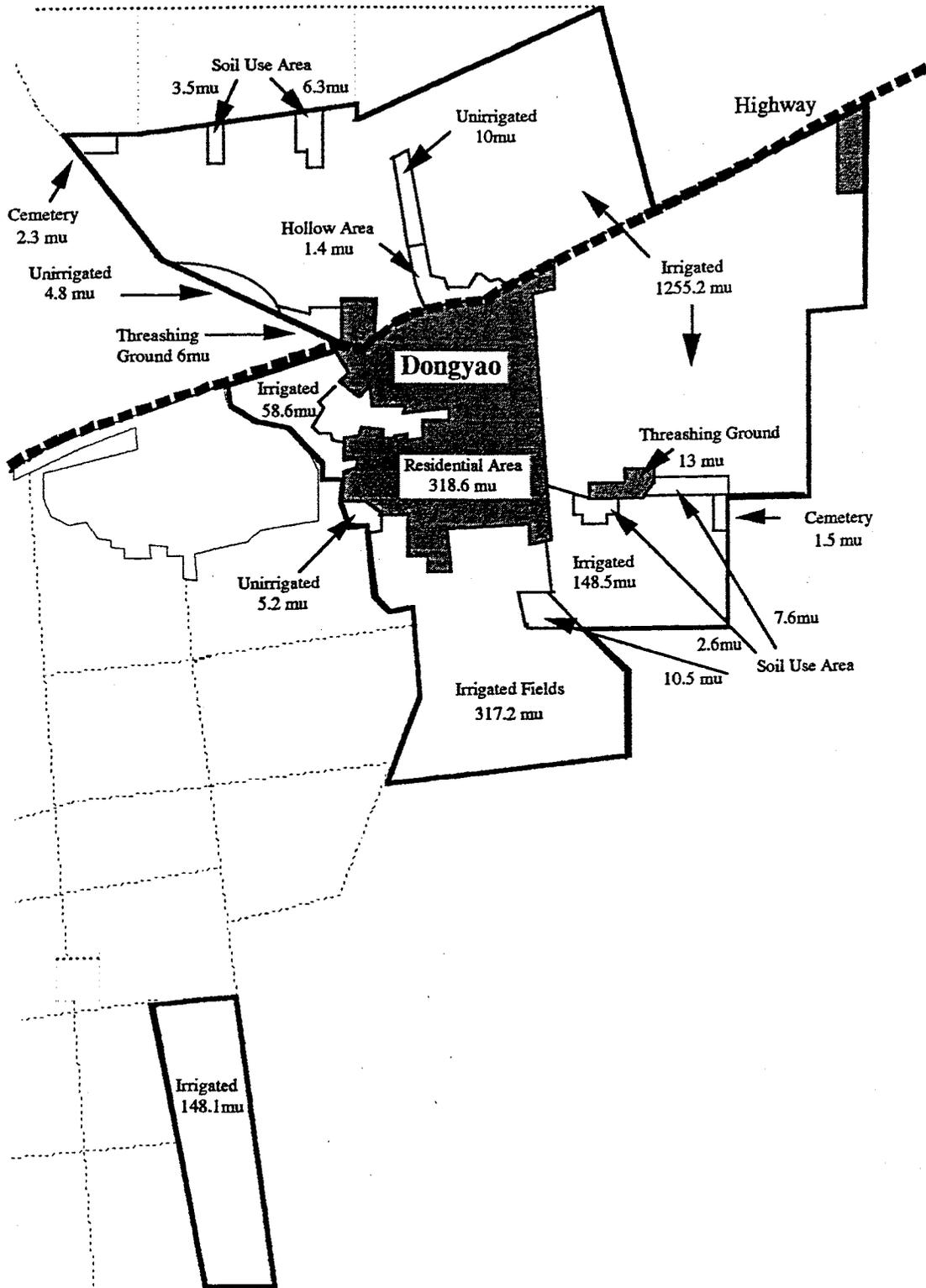
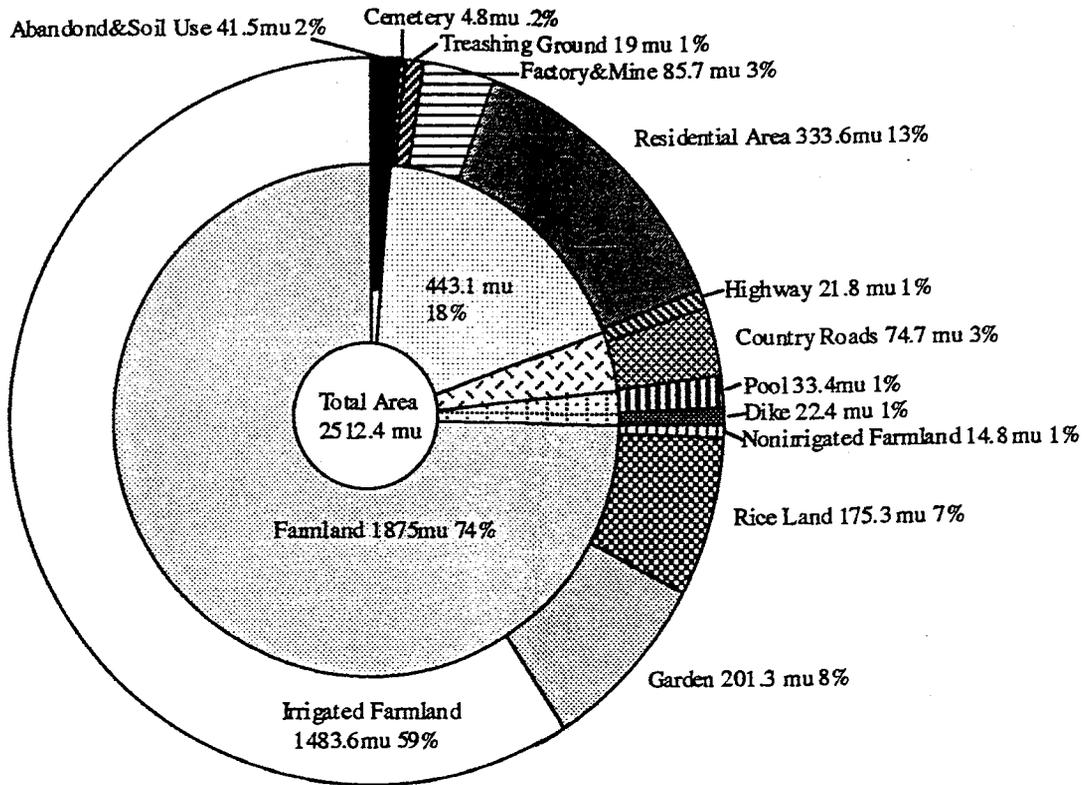


FIGURE 2.3
Pie chart of land use in Dongyao



Land Use	Area (mu)	Percentage
Abandoned or Soil Use	41.5	1.65
Cemetery	4.8	0.19
Threshing Ground	19	0.76
Factory & Mine	85.7	3.41
Residential	333.6	13.28
Highway	21.8	0.87
Country Roads	74.7	2.97
Pool	33.4	1.33
Dike	22.4	0.89
Unirrigated Farmland	14.8	0.59
Irrigated Farmland	175.3	6.98
Irrigated Garden	201.3	8.01
Irrigated Farmland	1483.6	59.05
Total	2512.4	100%

Grain cultivation predominated in Dongyao before 1982, but there has been a recent shift toward producing cash crops such as vegetables, potatoes, and watermelon. Figures for share of output value, available for Yutian as a whole, show this to be a more general trend. In the years immediately before 1975, wheat and corn accounted for over 90 percent of the value of total agricultural output. By 1982, however, grains had declined to 55 percent of total value, and more profitable market crops made up 30 percent. In order to increase the output of farmland, cultivation has been increased from two crops per year (wheat and corn) to three (cabbage, wax gourd, and Chinese cabbage, or cabbage, corn, and cauliflower). More recently, some households have ceased grain cultivation altogether.

Per-capita income in Dongyao rose from ¥45³ before 1980 to ¥1,100 in 1991, well above the average figure for Yutian County (¥789).

2.3 THE ORGANIZATION OF VILLAGE AGRICULTURE: THE CHANGE FROM THE COMMUNE SYSTEM TO THE HOUSEHOLD RESPONSIBILITY SYSTEM

The changes in the organization of agricultural production from the commune system to the household responsibility system began in Dongyao Village in 1979. Under the commune system before 1979, agriculture was organized first by collectivizing the factors of production (land, capital, and labor), and the collective then allocated these separate factors among tasks. In June 1979, a new system for agricultural production was adopted, based on the recent experience of the rural areas in Anhui and Sichuan provinces, which allowed 12 percent of communal working brigades to practice *lian chan ji chou*, whereby income was no longer distributed by the work point system but was based on output per member.

In the harvest season of 1979, the brigades in Dongyao divided crops in the fields among the households according to the number of family members. Every household harvested crops, keeping most for themselves, but handing over a production quota, decided upon by the brigade and based upon the amount of land harvested, to the state. In the next season, the planting of crops was still done by the former production teams, but the crops were tended by the individual households. Output increased, for certain jobs such as tillage and weeding had been neglected when agricultural production was done by production teams.

At the end of 1980, the brigade in neighboring Xiaochenu Village divided the land and other collective property among member households. The people in Dongyao were very much shocked by this. At that time, peasants said, it seemed as if there were an "earthquake" in the vast countryside of China because radical changes would take place almost every day in the rural areas. The people in Dongyao were very cautious about changing the entire system of agricultural production, and proceeded in two deliberate steps. At the beginning of 1982, the land was divided among households. Each production team had its own area of land which was distributed to member families on a per-capita basis. The land

3. Currently, US\$1 is equivalent to 5.7 yuan.

was first divided into categories by quality, and each household received a share of each type of land. Plots were distributed by lottery (*zhua jiu*). Because of the manner in which the land was divided, each household received an average of 10.9 very small parcels. In the second step, in the second half of 1982, the collective properties and draft animals of the production brigade were divided among the production teams, then among constituent production groups by the teams themselves. For example, seven households would get a cow or four households would get a handcart. The total value of this collective property was less than ¥40,000 (including draft animals).

The changes in the organization of agricultural production stimulated farmers' enthusiasm for production and resulted in the growth of output, but the farmers were soon faced with new problems. First, there were increased disputes over resources, especially over access to systems or equipment that could not be divided among households such as canals, some agricultural machinery, and well pumps. This led to fighting even between relatives during the busy planting and harvesting seasons. Families allocated most of their labor to farming, and very little to public works. Second, much existing farm machinery could not be used effectively because of the small scale of the parcels, and farmers returned to manual and draft cultivation. Many households had to purchase their own equipment, whereas previously the implements had served the needs of several households. The cost of pump and draft animals, for example, was ¥98 for each family in 1983. Third, the collective property and agricultural installations were either sold or not properly maintained. Three levels of the canal system (the main canals of county's project, the branch canals of commune's project, and the small canals of village's project) deteriorated because nobody cared for them. Soon, farmers complained that the fields were inundated near the pumping station while the fields farther away were dry.

The collective sold off draft animals in the first year after the inauguration of the household responsibility system; collective buildings, in the second year; and trees, in the third year. By the fourth year, nobody wanted to participate in the leading cadres.

An adjustment of the allocation of land took place at the end of 1988. The proposal for a readjustment of plots came from the county government of Yutian. (It seems that in North China, "leading" is frequently imposed from above, in contrast with South China; but this is not the topic of the current investigation.) The principle of adjustment in Dongyao was to consolidate small pieces of land into relatively large parcels, using land of middle quality as the standard (0.9 mu of high quality land and 1.1-1.2 mu of poor quality land was considered equivalent to 1.0 mu of standard land).

When the number of people in each family increases, and if it is not time for the redistribution of land whereby the household is given more land, the grain quota for the family will be proportionately reduced, allowing more to be consumed or sold at market price.

Each household receives two kinds of land: the food plot, 0.5 mu per person based on per-capita consumption of 400 jin/year,⁴ is unaffected by the quota; the responsibility plot, 1.0 mu per capita, is based on transferring over 190 jin/mu each year to the state. There are also scattered pieces of land which are divided equally among the households.

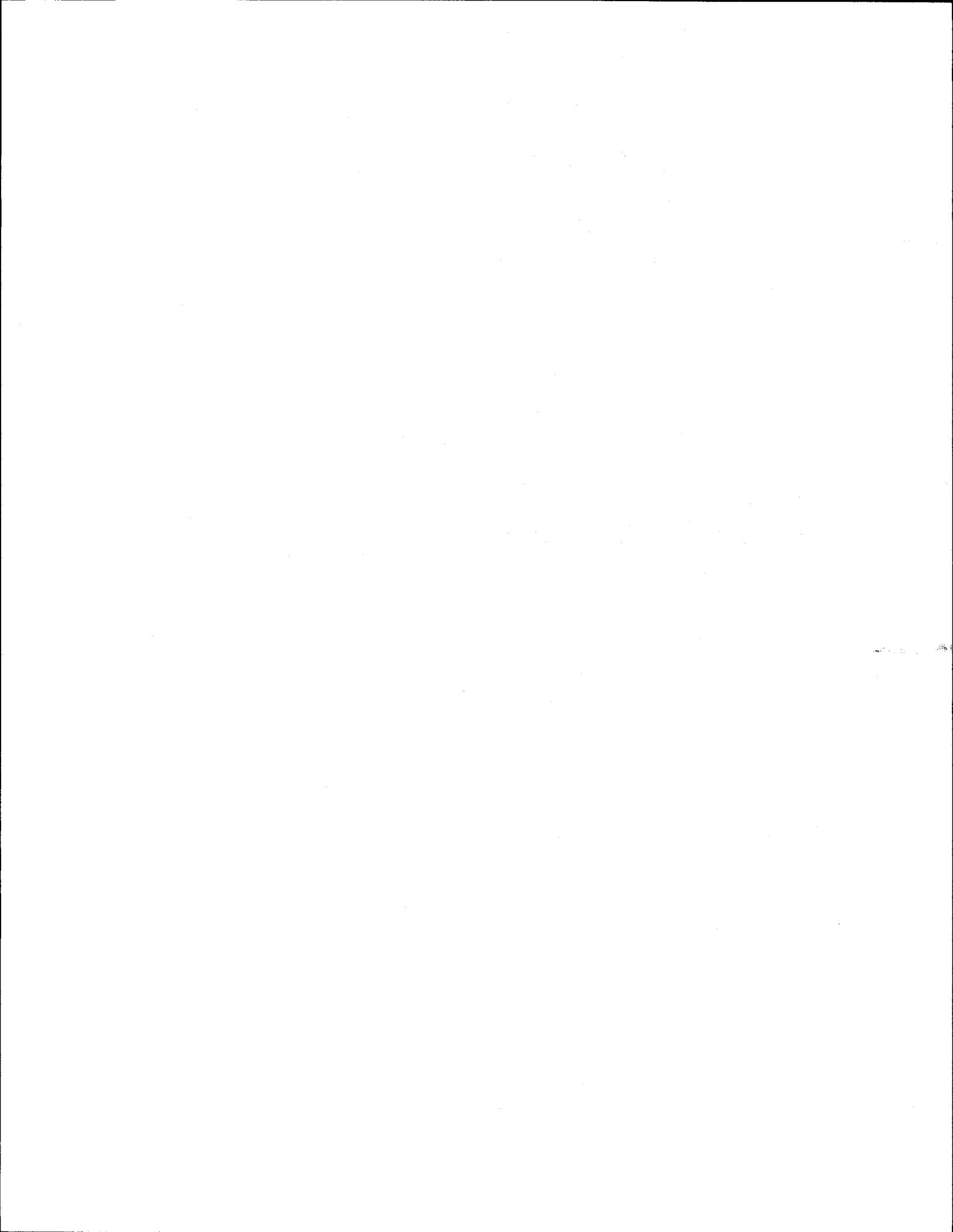
After reallocation, each household had an average of 5.06 parcels (see table 2.1).

TABLE 2.1
Changes in cultivated land plots and area

	1982			1991		
	Total	Irrigated	Unirrigated	Total	Irrigated	Unirrigated
Land area (mu/household)	9.08	6.69	2.38	7.65	6.05	1.50
Parcels/household	10.9	6.50	4.40	5.06	1.50	3.56
Average area (mu/parcel)	0.83	1.02	0.54	1.49	4.43	0.42

Generally, the land distributed to a family is registered under the name of the male head of household. If the male head dies or migrates to an urban area, the household's land may be registered under the wife's name or, if there is an adult son, under the son's name.

4. A Chinese unit of weight, 1 jin = 0.5 kilogram = 1.1 pound.



3. THE SOCIAL AND ECONOMIC CONDITION OF THE FAMILY

3.1 THE BASIC SITUATION OF THE FAMILY

The 23 families which were studied in this research make up about 10 percent of the households in Dongyao. The average number of members per family is 5.52 persons (the average for Yutian County is 4.14 persons/family). The figure of 5.52 may be related to a large, extended family comprising several families. There were two kinds of household: the extended family (at least three generations living together; see box 1), and the nuclear family. The extended family today is different from that of traditional Chinese rural society. The old-style extended family was composed of several parallel families of several generations living together; the current extended family consists of a son and his spouse living with his parents and their unmarried children. Usually, sons will establish a separate household when they marry or several years thereafter. After 1982, when the land was redistributed to the households, 80 percent of all existing families divided into smaller units. This might have been an effective way of reducing disputes over property, clarifying property rights, and allocating labor and resources within the family.

Box 1: Two extended families

Zhang Chun's family is a large family of four generations and ten people. The family has 16.6 mu of land divided into seven parcels. Zhang Chun is a manager in the village factory. His son and daughter-in-law work mainly in agriculture; his wife is responsible for house chores and takes care of her mother-in-law and two grandchildren. His two unmarried daughters work in a township enterprise. By occupational criteria, this family is a part-time agricultural family. The family income is derived from agriculture and wage labor, and expenditures are controlled by the head of their families.

Cheng Lianfu's family is also an extended family of four generations. He has four children, all of whom are married. The two married daughters live in another village. In 1990, he divided up the family property among himself and his two married sons, who work at village factories and live apart with their families. The land was divided on a per-capita basis, and the farmwork is done as if the families were still living together. Cheng acts like the captain of the old production brigade and assigns tasks to his two daughters-in-law every morning. He plans and decides on production. After the harvest, the daughters-in-law receive income and products according to their family's portion of land.

Within the 23 families, 127 persons were interviewed, representing 12.5 percent of the total population in Dongyao. Sixty-four of these were women, of whom 37 worked outside the home. Women make up 70 percent of the agricultural labor force in the case study families. Women have different patterns of life: they work considerably longer hours daily and have slightly less education. Figure 3.1 and table 3.1 reveal that women tend to work more than two hours longer on the average day. Figure 3.2 and table 3.2 show that women, on average, tend to be less educated than men.

Figures 3.3 to 3.5 characterize the women's occupational groups by their average ages, daily working hours, and years in school. These figures and the sorted data in table 3.3 show that the female farmers, labeled farmer or housewife and farmer, tend to work longer each day than other women. This is especially true of married female farmers and housewife/farmers. Their average age is 38 years, their average schooling is 4.46 years, and their average daily labor is 14.3 hours.

Figure 3.6 indicates that the women in the age group of 35 to 50 years work the most hours daily. A woman in this age rank is typically married. She must care for not only her children but also her parents-in-law, above her. She is responsible not only for the household chores but also for the family farm. The husband is still the head of household. The tradition that men are in charge of business outside of home and women are solely responsible for domestic affairs still endures. Based on the occupations of family members, families can be divided into two categories: full-time agricultural, and part-time agricultural. They continue the traditional division of labor: men do technical work and women do manual or unskilled work. Husbands still make the decisions regarding agricultural production and tend to do that farmwork which is customarily considered unfeminine, such as guiding the plow, sowing seeds, and making beds for planting. However, women now also take part in most economic activities of the family, and husbands consult with wives when they make decisions on agricultural production and domestic affairs (see box 2).

Box 2: Conversation with Wang Jinyu and his wife

Wang Jinyu said straightforwardly that, while he and his wife do the farmwork together, he does the skilled work and his wife does the manual and unskilled work. The household chores are her duty also. Wang Jinyu considers women as unable to manage farmwork. His wife told me that she does as much work as her husband. Her husband, however, does only farmwork and nothing else. He might play mahjongg with friends while it is her duty in the evening to do all the chores. She never, she said, has any leisure time.

FIGURE 3.1

Box-plot of daily working hours of men and women

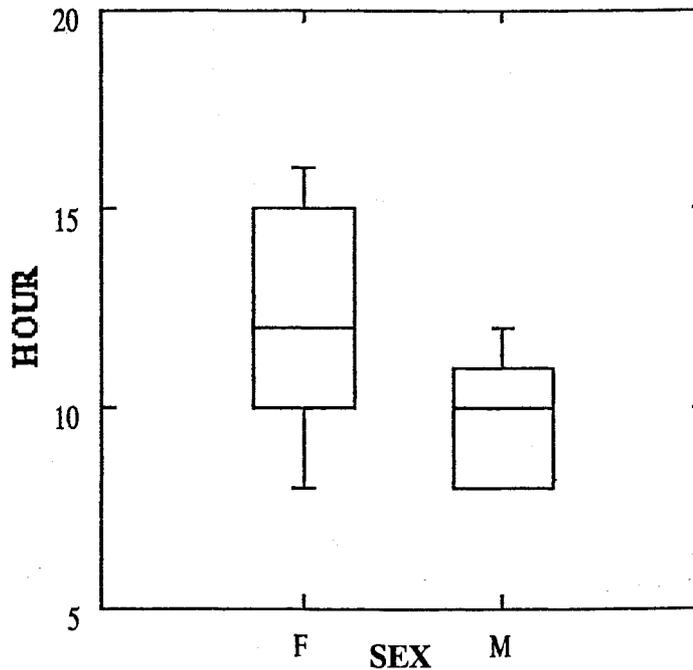


TABLE 3.1

Independent two-sample t-test on daily working hours by sex*

GROUP	N	MEAN	STANDARD DEVIATION
Male	35	9.657	1.626
Female	38	12.526	2.826

VARIANCE	T-TEST	D.F.	P-VALUE
Separate	-5.368	59.9	0.000
Pooled	-5.257	71	0.000

* Based on the box-plot and the t-text, we conclude that on the average women tend to work more than two hours more each day than men. The t-test strongly supports the statement.

FIGURE 3.2

Box-plot of years in school: men versus women

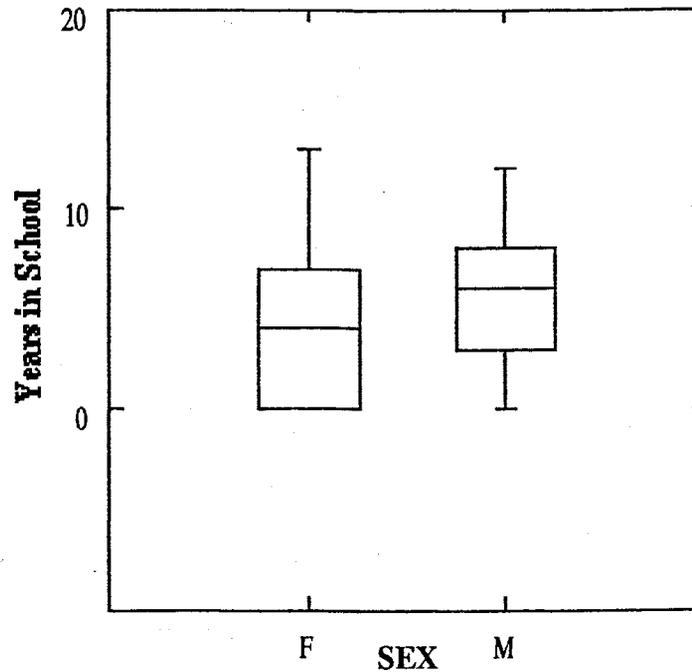


TABLE 3.2

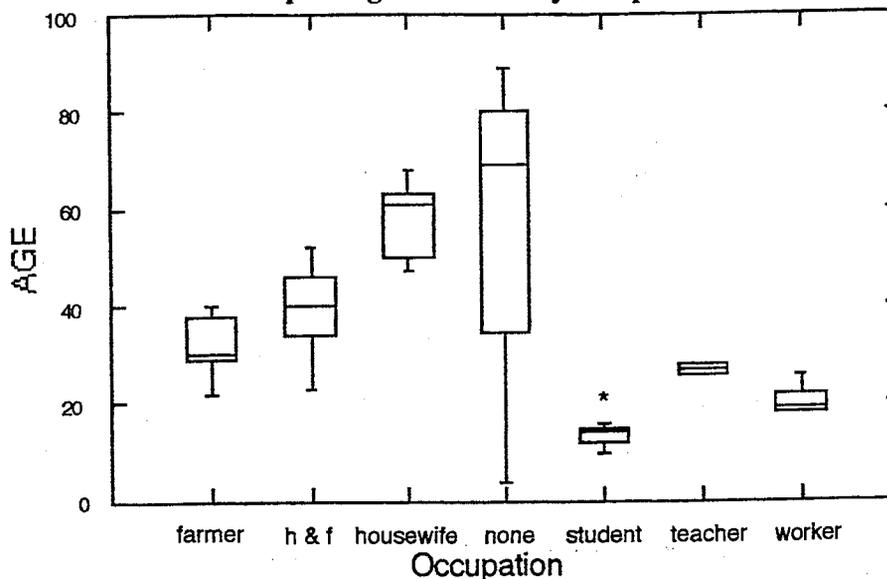
Independent two-sample t-test on years in school by sex*

GROUP	N	MEAN	STANDARD DEVIATION
Male	61	5.393	3.348
Female	61	4.328	3.802

VARIANCE	T-TEST	D.F.	P-VALUE
Separate	1.643	118.1	0.103
Pooled	1.643	120	0.103

* Based on the box-plot and the t-test, we conclude that women tend to have less education (one year less in school) on the average than men. The t-test supports the statement.

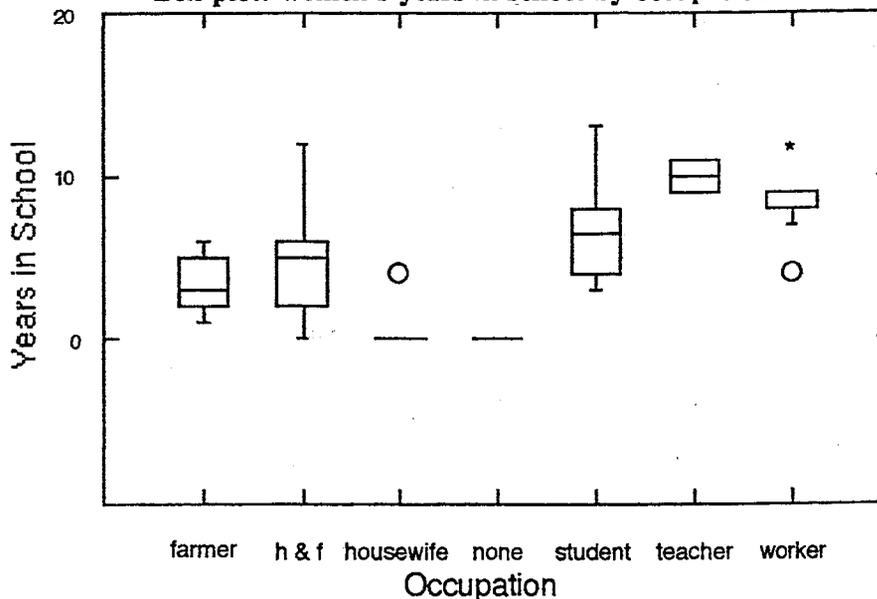
FIGURE 3.3
Box-plot: age of women by occupation



h = housewife; f = farmer

Farmer: doing mostly farmwork; h&f: doing farmwork and housework; housewife: doing mostly housework; none (for old people, usually over 70 years of age); student (for people who study in a university); teacher and worker (wage labor). Most female farmers are between 25 and 40 years of age, while most farmers and housewives are between 30 and 50. Housewives are generally older women, between 50 and 70 years of age; students, teachers, and workers are younger, around 20.

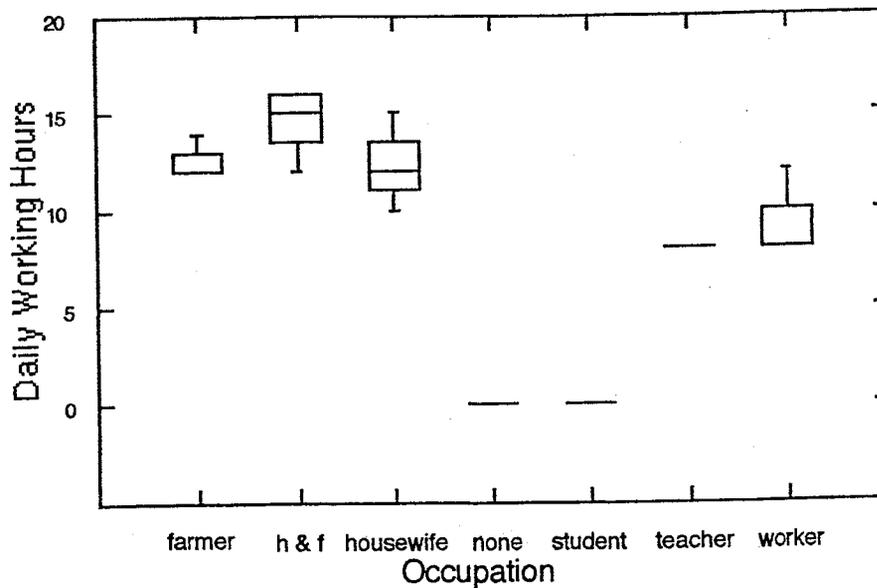
FIGURE 3.4
Box-plot: women's years in school by occupation



h = housewife; f = farmer

Women who engage in farming (labeled farmers and h&f) have less education than students, teachers, and workers, but more than housewives and grandmothers.

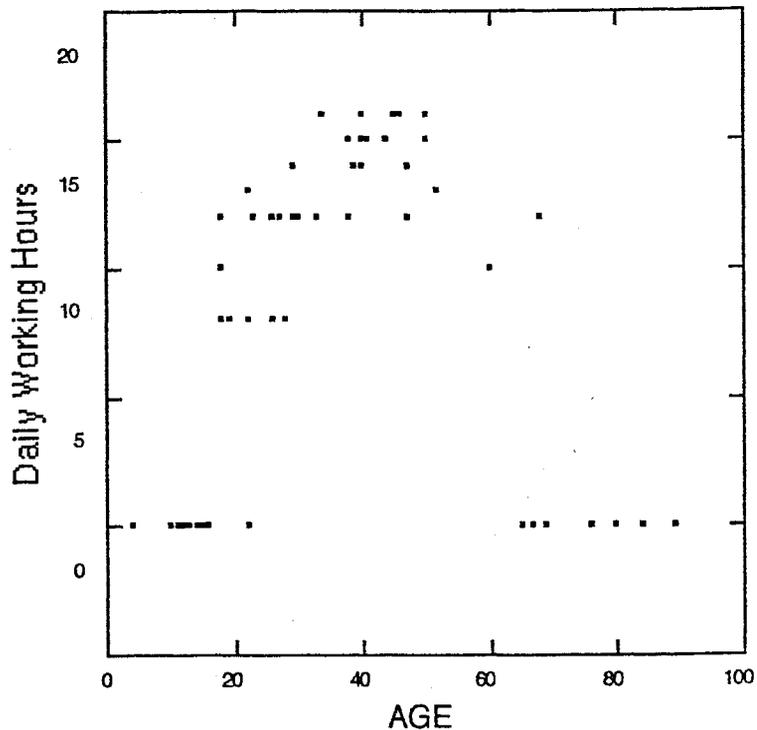
FIGURE 3.5
Women's daily working hours by occupation



h = housewife; f = farmer

Female farmers and housewives tend to work longer daily hours than female students, teachers, workers, and grandmothers. The group of farmer housewives (h&f) works the most hours daily.

FIGURE 3.6
Scatter plot: women's daily working hours versus age



The women in the age group of 35 to 50 work the most hours daily.

TABLE 3.3
Personal data sorted by daily working hours

FAMILY ID	SEX	AGE	ROLE	EDUCATION	YEARS IN SCHOOL	OCCUPATION	NONAG. INCOME	DAILY WORK HOURS
2	F	45	wife	primary	6	h&f	1000	16
4	F	46	wife	primary	6	h&f	240	16
9	F	40	wife	primary	5	h&f	0	16
15	F	46	wife	middle	9	h&f	0	16
16	F	46	wife	primary	5	h&f	0	16
17	F	34	wife	high	12	h&f	0	16
21	F	40	wife	none	0	h&f	0	16
23	F	50	wife	middle	9	h&f	0	16
1	F	50	wife	none	0	housewife	0	15
10	F	44	wife	primary	6	h&f	0	15
11	F	41	wife	none	0	h&f	492	15
12	F	40	wife	none	0	h&f	0	15
18	F	38	d-in-law	primary	4	h&f	0	15
3	F	40	wife	primary	2	farmer	0	14
5	F	39	wife	primary	5	h&f	0	14
14	F	47	wife	none	0	h&f	0	14
22	F	29	wife	middle	7	h&f	0	14
15	F	22	daughter	primary	3	farmer	0	13
20	F	52	wife	primary	2	h&f	0	13
1	M	55	husband	high	12	manager	5040	12
1	F	29	d-in-law	primary	6	farmer	0	12
2	F	18	daughter	primary	7	worker	1440	12
3	M	43	husband	middle	9	worker	3600	12
4	M	50	husband	middle	9	worker	2880	12
4	M	21	son	middle	9	worker	1200	12
5	M	40	husband	middle	7	manager	2760	12
7	F	33	d-in-law	primary	4	h&f	0	12
7	F	26	d-in-law	primary	5	h&f	0	12
8	F	38	d-in-law	primary	5	farmer	0	12
14	M	49	husband	primary	6	manager	3000	12
14	F	23	d-in-law	middle	8	h&f	0	12
16	M	44	husband	middle	9	manager	2760	12
18	F	68	wife	none	0	housewife	0	12
18	F	30	d-in-law	primary	1	farmer		12
19	F	47	wife	primary	4	housewife	0	12
20	F	27	d-in-law	primary	5	h&f	0	12
21	M	46	husband	primary	6	manager	3600	12
23	M	50	husband	middle	9	manager	3300	12
1	M	29	son	high	12	farmer	0	10
3	F	18	daughter	middle	8	worker	1200	10
7	M	60	husband	primary	6	farmer	0	10
9	M	40	husband	primary	5	doctor	2400	10
11	M	43	husband	middle	8	manager	2760	10
13	M	65	husband	none	1	farmer	0	10
13	F	60	wife	none	0	housewife	0	10

14	M	23	son	middle	9	worker	3000	10
14	F	18	daughter	middle	8	worker	1440	10
15	M	44	husband	none	0	farmer	1800	10
17	M	31	husband	middle	9	farmer	0	10
20	M	27	son	primary	4	farmer	0	10
22	M	28	husband	middle	8	worker	2400	10
23	M	60	brother	none	0	farmer	0	10
2	M	43	husband	middle	9	salesman	1200	9
20	M	48	husband	primary	6	farmer	0	9
1	F	26	daughter	high	12	worker	1080	8
2	M	17	son	primary	8	worker	1080	8
5	M	64	grandfather	none	0	worker	1200	8
6	M	44	husband	primary	6	carpenter	960	8
6	F	19	daughter	middle	9	worker	1080	8
7	M	35	son	primary	6	worker	3000	8
7	M	26	son	middle	9	worker	2400	8
8	M	65	husband	primary	3	farmer	0	8
8	M	40	son	primary	6	worker	3000	8
10	M	44	husband	primary	6	farmer	0	8
10	F	18	daughter	middle	8	worker	1200	8
12	M	42	husband	primary	6	worker	2400	8
13	F	26	daughter	middle	9	teacher	840	8
18	M	72	husband	none	1	farther	0	8
18	M	31	son	primary	5	worker	1800	8
18	M	40	son	primary	5	worker	2400	8
19	M	49	husband	primary	4	farmer	0	8
20	F	22	daughter	primary	4	worker	1200	8
23	M	24	son	primary	6	worker	1320	8
23	F	22	daughter	middle	9	worker	960	8
23	F	28	d-in-law	high	11	teacher	900	8
1	M	15	son	primary	6	student	0	
1	F	80	grandmother	none	0	none	0	
1	F	20	daughter	middle	9	worker	1080	
3	F	13	daughter	primary	6	student	0	
3	F	10	daughter	primary	3	student	0	
3	F	76	grandmother	none	0	none	0	
4	F	15	daughter	middle	8	student	0	
5	M	12	son	primary	6	student	0	
5	F	14	daughter	middle	7	student	0	
6	F	41	wife	primary	1	h&f	0	
6	M	14	son	primary	4	student	0	
7	F	62	wife	none	0	housewife	0	
7	M	8	grandson	primary	1	student	0	
7	F	4	grand-d	none	0	none	0	
7	F	4	grand-d	none	0	none	0	
7	F	89	grandmother	none	0	none	0	
8	F	63	wife	none	0	housewife	0	
8	M	15	grandson	middle	7	student	0	
8	M	11	grandson	primary	5	student	0	
9	M	9	son	primary	3	student	0	
9	F	15	daughter	middle	7	student	0	
9	F	65	grandmother	none	0	none	0	

9	M	22	brother	college	10	student	0
10	M	16	son	primary	6	student	0
10	M	81	grandfather	none	0	none	0
11	M	17	son	middle	8	student	0
11	F	14	daughter	primary	5	student	0
12	F	22	daughter	college	13	student	0
12	M	20	son	middle	8	worker	1200
12	M	80	grandfather	none	1	none	0
12	F	80	grandmother	none	0	none	0
14	M	15	son	primary	6	student	0
14	F	84	grandmother	none	0	none	0
14	M	2	grandson	none	0	none	0
15	M	15	son	middle	8	student	0
15	M	66	grandfather	none	0	none	0
16	F	11	daughter	primary	3	student	0
16	M	10	son	primary	3	student	0
17	M	9	son	primary	1	student	0
17	F	4	daughter	none	0	none	0
17	F	67	grandmother	none	0	none	0
18	M	10	grandson	primary	4	student	0
19	F	12	daughter	primary	4	student	0
19	M	5	son	none	0	none	0
19	F	69	grandmother	none	0	none	0
20	M	7	grandson	primary	1	student	0
20	M	5	grandson	none	0	none	0
21	M	16	son	middle	8	student	0
21	M	14	son	middle	7	student	0
22	M	5	son	none	0	none	0
23	M	19	son	middle	9	soldier	0
23	F	16	daughter	middle	8	student	0

In the part-time agricultural family, usually the husband has already left agriculture and works in a village industry or, for example, as a carpenter or village doctor. Men work outside of agriculture most of the year except for periods of peak labor demand during planting and harvesting. Their wives are in charge of the management and yields of responsibility land and food plots as well as sideline production.⁵ So the rural middle-aged woman, as "the one in the house," becomes the main agricultural laborer of the family. These women bear two burdens: household chores, and farm production. It is impossible for them to leave the house and the land and look for a job. As wives, they are responsible for the household; as mothers, they look after their children; and as daughters-in-law, they care for their husband's parents. Women are also limited by their own disabilities. These middle-aged women generally have little education and, being traditional in their views, are not able to face the challenge of the new social division of labor. Most young unmarried women (average age of 20-22 years) also work in village industries. They have better education than their parents, with a mean of 8.3 years in school.

3.2 ACCESS TO FAMILY LAND

The distribution of land to households at the inception of the household responsibility system has already been discussed (see section 2.3, above). The community had two types of land: irrigated and unirrigated. The irrigated land was divided into food plots and responsibility plots; the unirrigated land was divided among responsibility plots. This community land was then distributed to households. Redistribution proceeded on the basis of the registered population receiving 1 mu per person of responsibility land (households must sell a quota of grain from their "responsibility land" to the state at prices set by government purchasing agents). The food plot land provides the grain ration for the household and was distributed at the rate of 0.5 mu per person. If a household's home parcel was larger than that its size warranted, the excess was subtracted from its food plot. The paddy field granted was 0.1 mu per person, and unirrigated farmland was 0.12 mu per person. There was an average number of 10.09 land parcels in each family. The smallest parcel of land was less 0.1 mu.

The village has adjusted the distribution of land three times since 1982. The reasons for the readjustment are that the land was too fragmented to be easily cultivated, that the population has increased, and that land has been taken for industrial uses. After realignment of landholdings in 1989, the number of parcels was limited to 6 per family and land access for the household became easier than previously. (See Guo Jun's land map, figures 3.7 and 3.8).

5. Sideline production includes domestic pig and poultry raising, cottage handicrafts, and other small-scale, income-generating activities which supply most of the nonstaple food consumed by farmers and constitute an important part of their cash income.

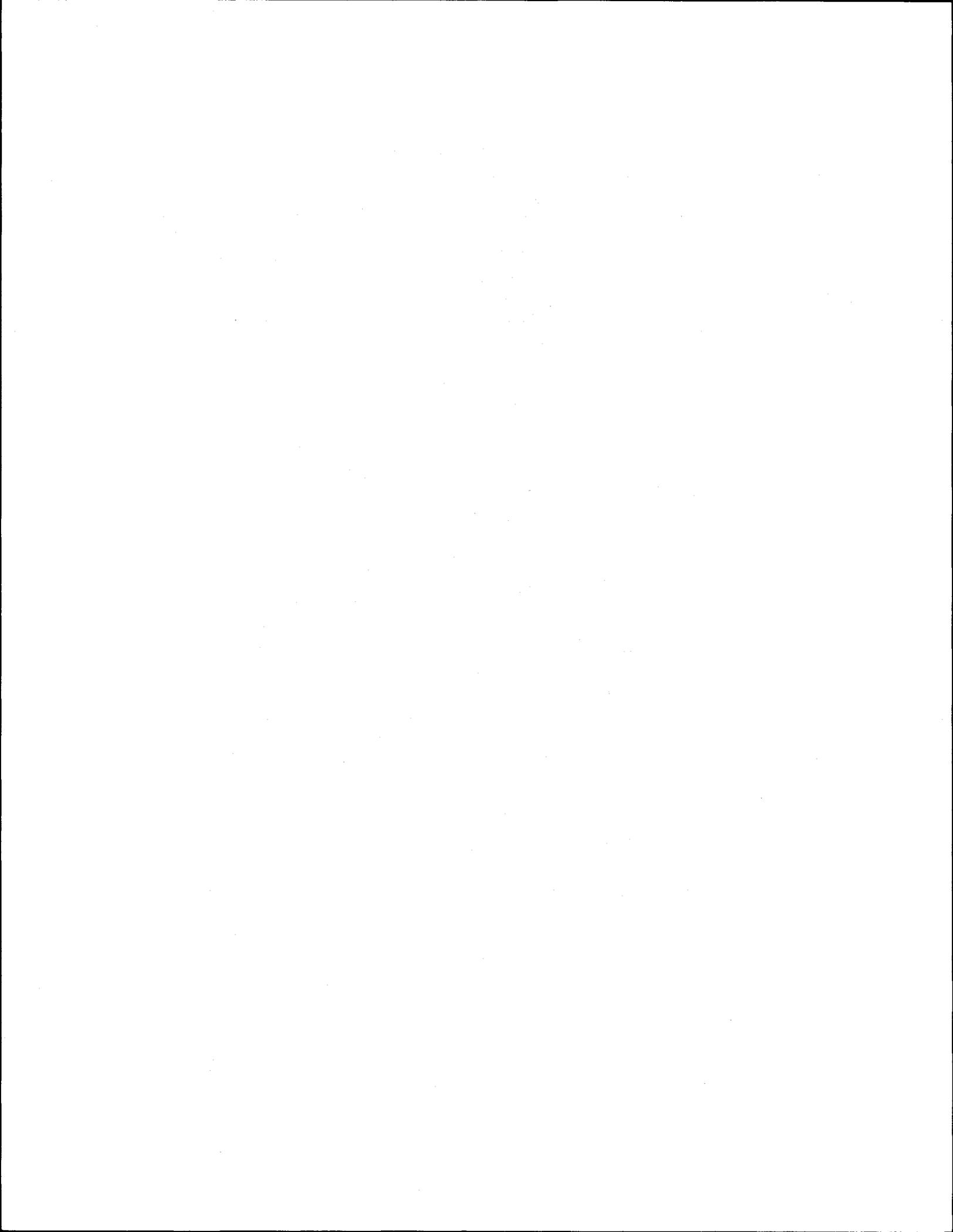
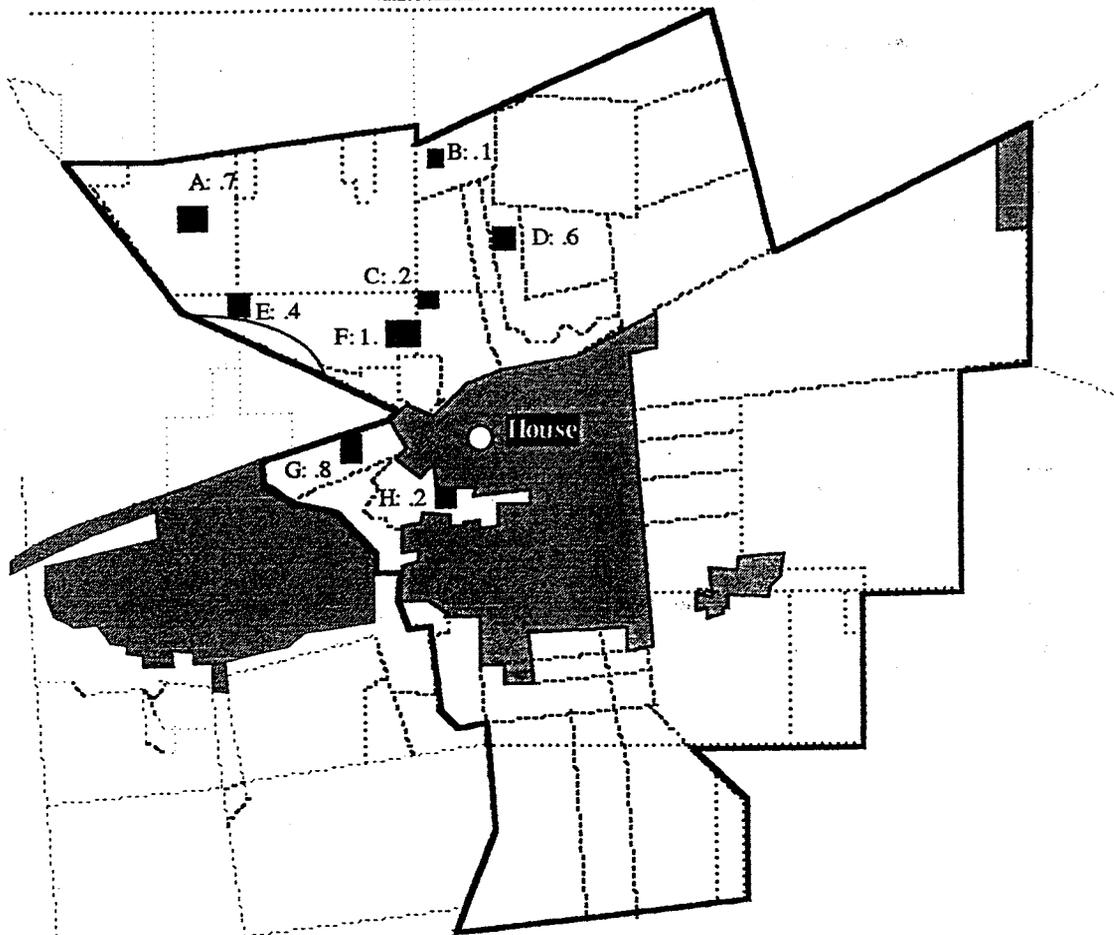


FIGURE 3.7

Guo Jun's family land parcel locations before 1989



Guo Jun's Land Parcels: 1982-1989

Parcels (mu)	Distance to House (m)
A (0.7)	750
B (0.1)	700
C (0.2)	380
D (0.6)	500
E (0.4)	550
F (1.0)	300
G (0.8)	200
H (0.2)	50
I (0.8)	2000

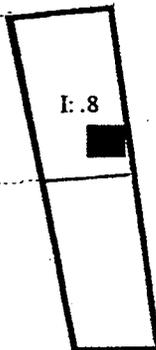
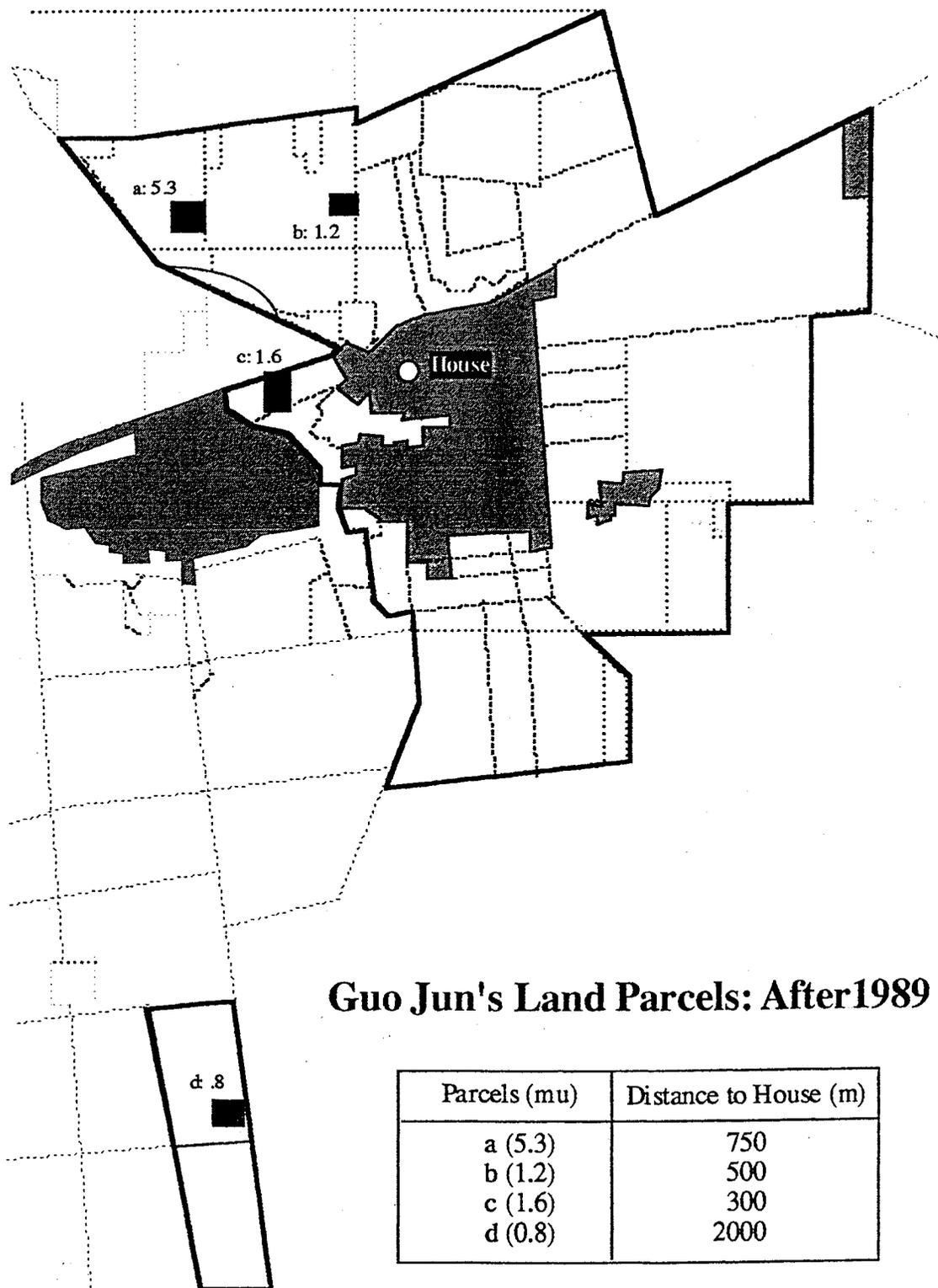


FIGURE 3.8

Guo Jun's family land parcel locations after 1989



Guo Jun's Land Parcels: After 1989

Parcels (mu)	Distance to House (m)
a (5.3)	750
b (1.2)	500
c (1.6)	300
d (0.8)	2000

Wheat and corn were the main crops in Dongyao before 1986. Since then, more and more households have tried planting vegetables, beginning with the food plots in their yard gardens. So far, 65 percent of households have diversified away from cultivating only grain and now include such vegetables as cabbage, wax gourd, green onion, and Chinese cabbage. The planting seasons have expanded from two to three crops per year, and agricultural practices now entail interplanting grain and vegetables, such as cabbage, corn, and Chinese cabbage.

3.3 INCOME OF FAMILY MEMBERS

The average per-capita income in Dongyao was ¥1,100 at the end of 1991. Before 1980, income per capita was only ¥40-50. The production brigade (now the village committee) started to build the first village industry, a brick production unit, in 1980. Per-capita income rose to ¥300 in the same year. Among the 23 families which I interviewed, the highest annual household income was ¥1,827, and the lowest was ¥391.47. Some of the earnings of the former family came from nonagricultural sources as well as agricultural and sideline earnings, but the income of the latter family depended solely on farming. The average income for a full-time agricultural family is on average lower than that for a part-time agricultural family. The former is ¥1,016.30, but the latter is ¥1,514.04.

Wang Jinyu is generally recognized as a good farmer in the village and works full-time in agriculture. He and his wife work very hard, but their income is ¥1,127.87, which is still far lower than the average income of part-time agricultural families. Farm households are trapped at a low level of income if no surplus labor flows off the land (see table 3.3).

TABLE 3.3
Input-output and per-capita income of two families

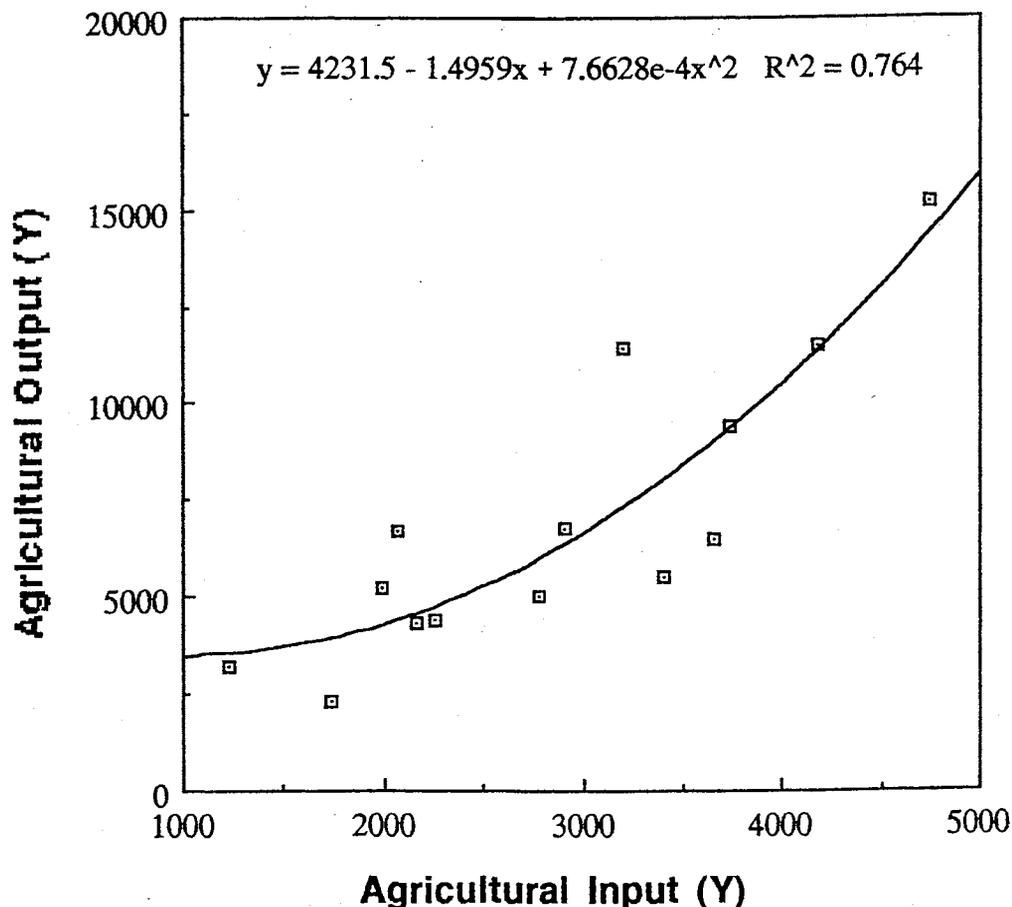
NAME/ITEM	INCOME ^a	PER-CAPITA INCOME	OUTPUT	INPUT
Wang	5639.35	1127.87	9376.30	3736.95
Guo	7308.00	1827.00	6673.35	2065.15

- a. Note that Wang's family is a full-time agricultural family; the income came only from agriculture. Guo's family is a part-time agricultural family; its income sources included agriculture, nonagriculture, and sideline activities.

The average productivity of agricultural activities in the surveyed families reached about 1:2.4, that is, 1 yuan input of capital yields 2.4 yuan. The production efficiency is illustrated by the quadratic regression shown in figure 3.9, with $R^2 = 0.764$. The regression curve implies that when the scale of production becomes greater, that is, with more input, the rate of return increases significantly.

FIGURE 3.9

Quadratic regression model for agricultural input and output



The quadratic regression curve, which explains 76.4% of the variation in agricultural output, implies that when the scale of production becomes greater, i.e., with more input, then the rate of return increases significantly.

3.4 ASSESSMENT OF EDUCATION BY FAMILY ROLE AND OCCUPATION

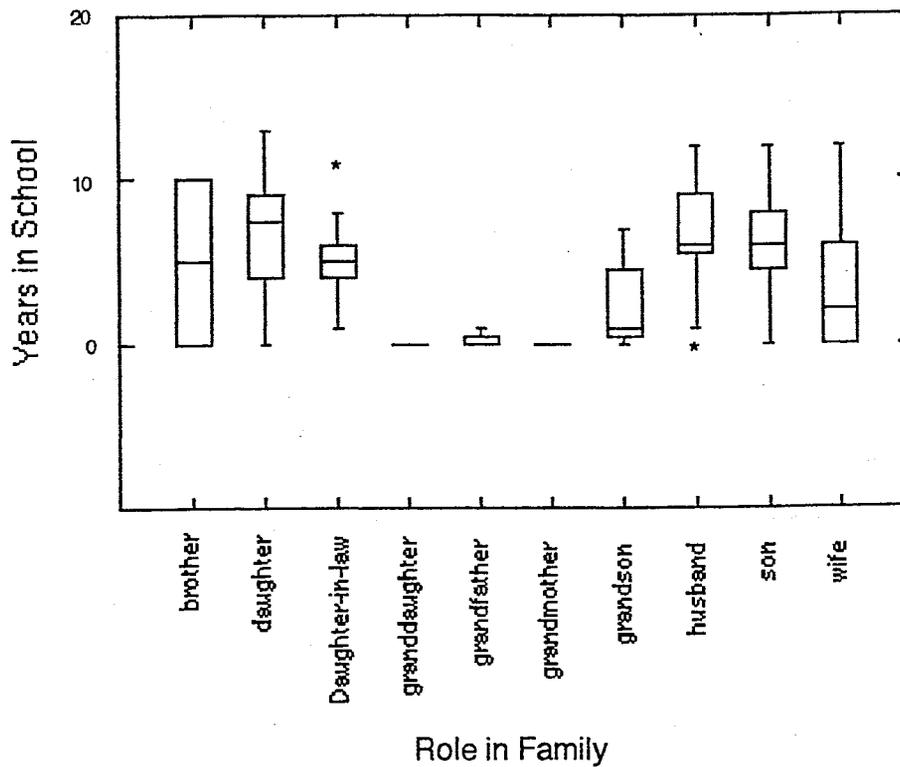
To assess the impact of education, individuals were categorized in roles and occupations by their relative levels of formal schooling.

The differences in level of education are indeed significant as far as family roles are concerned. Generally speaking, the generation of grandparents (typically above the age of 60) is illiterate. On the average, the household heads (male), with a mean age of 47.6 years, have had 6.2 years in school, while their wives, with a mean age of 46.5 years, have had

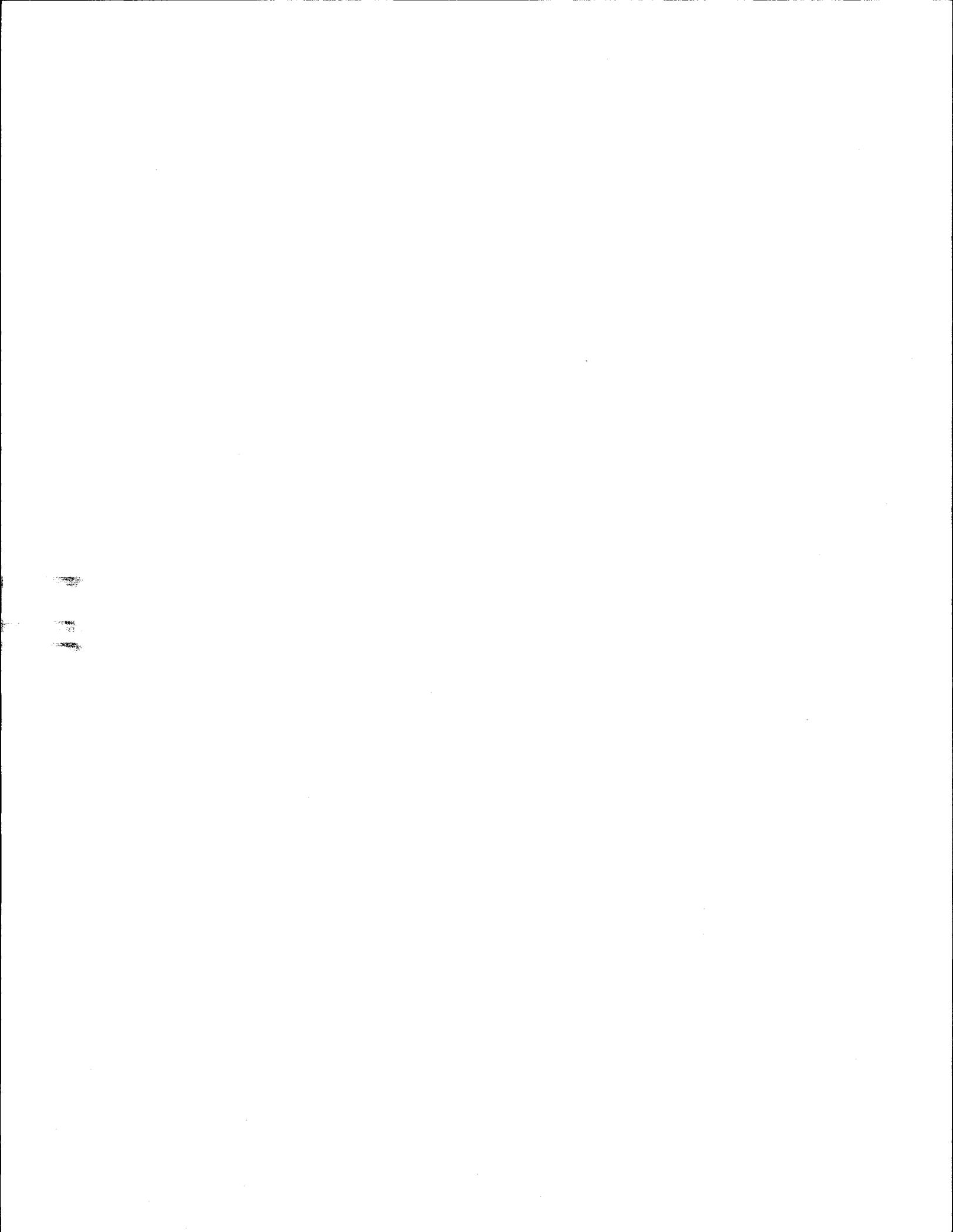
only 3.6 years of schooling. The younger generation (sons, daughters, sons-in-law, daughters-in-law) has had an average of 6.16 years in school. Females in this category have a mean educational level of 6.9 years, two times more than their mothers and mothers-in-law. The younger males have the same average amount of education as their fathers, which reflects the traditional priority given to males in the Chinese rural education system. The situation is illustrated by the box-plot in figure 3.10.

FIGURE 3.10

Box-plot: years in school versus roles in family



Occupation is another important factor reflecting the different levels of education for females, while on average the levels of education for males are similar across vocational categories. The female agricultural work force has a mean level of education of 4.46 years, while the nonagricultural female labor force, a group of young women with an average age of 20.7 years, has 8.3 years of schooling, which is equivalent to the completion of middle school. The data show that young, unmarried, and educated women have better economic opportunities than do middle-aged, married, and less educated women.



4. THE HOUSEHOLD ASSUMES RESPONSIBILITY FOR PRODUCTION

4.1 THE 1981 LAND REFORM AND HOUSEHOLD DECISION-MAKING

In China, the organization of agricultural production before the rural economic reform in 1981 was the commune system, which was based on collective ownership of the means of production (including the land, farm implements, farm animals, and so on), collective organization of labor for production, and administrative distribution of income. This structure had been changed often since its inception in 1949, each time growing progressively more collective. The smallest unit of agricultural production in 1954 was the mutual aid group, consisting of 6-8 households (later it was called the brigade). The elemental agricultural producer's cooperative (in which distribution of production was based on the amount of work that each member did and the amount of land s/he contributed) was composed of 20-50 households in 1955. A more advanced cooperative was established in 1956 to include 10 or more villages. In 1958, this method of organization changed to the people's commune, in which the basic accounting unit was the production team, consisting of a small village or a part of a larger village (25-50 households). A rural people's commune was composed of 1,500-5,000 households and managed every aspect of rural life. The commune replaced the township as the primary-level unit of local government.

During the above period, there were changes in the names, tasks, and responsibilities of accounting and production at all levels. At the base, a unit was composed of 6-8 households, then came a division of 20-50 households. Although the tasks and names of the production units changed, the farmers still worked with their relatives and neighbors in the same labor sections.

In the commune era, Dongyao Village was a production brigade with 4 production teams. When the people's commune was set up in 1958, each of the farm production teams included about 50 households. (See box 3: Production organization under the commune system.)

During this era, the land belonged to the collective, and commune members worked collectively and distributed the products equally. The system included almost every aspect of rural life. The households were the simplest unit of labor and consumption and the collective made almost every management decision. In the sphere of production, the heads of household could make decisions only for the output of their own food plots, since the production from the food plots would be consumed by the individual families. Products for sale in the free market, on the other hand, had to be approved by the brigade. In the sphere of consumption, the head of household could decide such matters as buying a child's textbook or a kind of food. Some women worked with the men in the fields, but most continued as housewives who looked after household chores, followed rules, and had low status. In

agriculture, women could earn only 7.5 work points each day, but men would receive 10, even though both sexes did the same kind of work and worked the same hours.

The rural land reform (described above, section 2.3) brought major changes to Dongyao and the lives of the farmers there. Under the new system, the household replaced the collective as the basic unit of production, management, and decision-making. Farming became a family business. Households now make decisions about how to use land, what to produce, how much to sell, what inputs to use, and so on. The head of household has become the team leader.

Due to the change in the household's role, the division of labor within the household has changed, too. In the past, all persons were commune members who obeyed the collective's prescribed division of labor. The heads of household were to make decisions only on their own family's consumption of the grain distributed by the collective. Under the household responsibility system, the male as head of household has become a manager, completely in charge of input and output. As team leader, he may make decisions on household production and management. The women have participated in all parts of agricultural production, not merely obeying assigned tasks and performing designated labor. As villagers, they have a right to a portion of land and other resources. As family members, they take part in almost all activities of production and management.

Box 3: Production organization under the commune system

An old man now, Yang Zizheng used to be the secretary of the Party's branch in Dongyao in the commune era. He said that agricultural production was time- and energy-consuming in those days—following the plow one time over the land and then going back over the land to measure plots by hand. Farmers and cadres worked hard from year to year but still lived in poverty. The farmers said of the cadres that were good with planting in spring, good with the harvest in autumn, and guilty of doing nothing in winter. Planting in the spring was the busiest time for all levels of production organization. Commune members went to work before dawn and cadres had to sound the clock, call the roll, divide the tasks in the morning, and evaluate work and allot work points among the commune members in the evening. During harvest season, commune members received their earned portion of grain and cash, and appreciated the cadres' hard work. During winter, commune members had to rebuild basic structures in the fields, construct irrigation, roads, and railways, and probably meet temporary shortages. Then, the absent cadres were the targets of the farmers' hatred.

4.2 THE IMPACT ON WOMEN'S WORK AND LIVES

In Mao's time, Chinese rural women gained the right to work outside of the family home. As a starting point to expand women's rights, government advocated that women should take part in social activities and economic production. The government focused more on equality than on profit, urging that women work together with men and have equal economic rights. In the Deng Xiaoping era, after Mao, the government seemed to stress the productive role of women even more. In fact, one can see from the Dongyao case that Chinese rural women now have greater access to resources than ever before.

The law stipulates that men and women have equal rights of access to land. As long as one is a resident of a village, s/he has the right to use a share of the land that has been evenly allotted among the village's residents. Who within the household (whether male or female) comes forward to represent the family in contracting its share of land from the authority means little in the current transformation of the commune to the household responsibility system. In the land reform that took place in the 1940s, under which households could own land, whoever stepped forward to contract the family's share of land became the legal landowner. But the current transformation does not delegate the ownership of land to households; rather, it gives families the right to use the land. In other words, while the family member who became the legal owner of the family's share of land could decide whether or not to let others have access in the earlier land reform, all family members are by law guaranteed access to their own share of land in the more recent transformation.

Yet, in reality, due to the influence of the prevailing model of marriage in the Chinese countryside, women are hardly equal to men in their actual access to land. Even though both men and women have increased access to resources under the new system, women still have less than men.

As elsewhere in rural China, the village of Dongyao observes the so-called *cong fu ju* marriage custom, which means that a woman moves in with her husband's family upon marriage. In the rural areas, since women are supposed to leave their parents' family for good upon marriage, the household treats unmarried women as temporary members. Few families provide a dowry for their daughters, and wedding expenses are usually covered by the bridegroom's family. In case a woman becomes a widow, she can continue to live with her late husband's family; but if she divorces, she is likely to return to her parents' household. This marriage model has an impact on women's access to land and other productive assets under the household responsibility system.

First, as a member of their parents' family, unmarried women are entitled a share of land in the village where the parents live. Yet upon marriage and moving away from the village, these women go through a period during which they in effect are landless. This happens because at the current stage of the household responsibility system, landownership rests at the village level, and one is entitled to access to a share of land in the village when one is a resident. But once s/he moves away from the village, s/he loses that access.

Theoretically, a newly wed woman is entitled to a share of land in her husband's village, but since a village redistributes its land only periodically, the woman has to wait until the next land redistribution to obtain her share.

Second, if a married woman lives with her husband's family, her father-in-law is, more often than not, the head of the extended family. In this case, her legally guaranteed access to a share of land has only nominal meaning, because all decisions over how to make use of that land are made by the household head. While in the era of the commune system, a woman took orders from the production team leader, now she becomes a passive laborer ordered around by her father-in-law.

Third, when a woman lives with her husband in a nuclear family, the family will receive a share of land for her. These are young families with better education and without the restrictions from their parents or parents-in-law such as those prevailing in extended families. In these young households, women will take part in the decision-making concerning both production operations and family affairs. (See box 4.)

Finally, if a married woman divorces and moves away from her ex-husband's village, she again goes through a period of time during which she is in effect landless, until a redistribution of land takes place in her parents' village.

Box 4: A young couple farming on their own

Cong Niaqian and his wife are a young couple, 28 and 29 years' old, with a child aged 5. They separated from their extended family two years ago and have become fully aware of the benefits of their autonomy as a nuclear family. The wife told me that when she was with her in-laws, it was like living before the advent of the HRS. Her husband's income from his industrial job had to be handed over to her mother-in-law. She never received any money though she worked all year. She had to request money from her mother-in-law just to visit her parents. Within this larger family unit, she and her husband were not required to break their backs working. But with her own family that has its own land, everything they do—all their work—is just for themselves. She is able to join her husband in making decisions about production and the family. So, she always works very hard in the fields and with family chores, for she knows how much she gets from the work she does.

The young wife is hopeful for the future and saves money because she wants to build a new house for a daughter-in-law when the time comes—a common hope for rural women who have unmarried sons.

Agricultural production is a highly seasonal activity, and both planting and harvesting require intensive labor input. Mutual help was a method of labor division arranged by the collective; once the commune system was dissolved, mutual help evolved into a voluntary and good-willed relationship among neighbors and relatives. Social connections on the maternal side tend to play a more prominent role in forming a mutual-help network. Mutual help is an equality-based labor exchange, and it effectively solves the problem of labor shortage in busy seasons.

Though there are difficulties in women's access to land of their own, it is clear that their roles in agriculture have been growing under the household responsibility system. In the part-time agricultural households in Dongyao (25% of households), almost all agricultural income is produced by women's labor. In the full-time agricultural households (75% of households), the husbands acknowledge that their wives should be given half the credit for the household's agricultural production. In other words, at least 50 percent of the household's agricultural income should be credited to women. Household sideline income is attributable mainly to women.

This expanded role in agricultural production has been accompanied by a greater role in agricultural decision-making. Although this conclusion might not be readily drawn from the collected data, its truthfulness was strongly felt during the interviews. Due to the influence of traditions and customs, when asked who in the household makes decisions, both the husband and the wife may say it is the husband. Despite that, one detects that the wife also participates in the decision-making process concerning agricultural production matters. The husband says that although he has the final say, he makes decisions only after consulting his wife in eight out of ten cases. The fact that the wife is often very familiar with production procedures, labor inputs, and market prices implies her involvement in decision-making in these areas. (See box 5.)

Box 5: A woman as head of a farm

Cheng Guirong is in her 40s. Her husband works outside the village. She is famous in the village for her farm production and is able to do almost any kind of farmwork, performing much work that, traditionally, was not for women. She manages about 9.59 mu of family land, drives a tractor, and carries over 300 jin of products by bike to sell in the street. The earliest change she made in the village was to switch from growing grain to producing vegetables. Vegetables on her land matured when vegetables on other lands were just germinating. She knows as much about market prices for her produce as she does about growing it. Men praise her for achieving prosperity through industry. Though she makes decisions about production and chores in the family, she still considers her husband to be the head of household and therefore the decision-maker.

The days when the husband made all decisions are gone forever. The image of the husband wielding all power in the household is becoming simply symbolic. In reality, for a wide range of decisions, it is more likely that the wife will call the shots. Women have their own views on family development, child education, and spending—and they doubt neither their ability nor their right to assert those views. For instance, when the Zhous talked about this issue, the husband said that decisions were made after consultation with each other, while the wife said, firmly, that she could make her own decisions.

From the data, it appears that women's income is not directly related to their education. The analysis does indicate, however, that households with higher incomes are placing more emphasis on the education of their children. Child education was regarded as very important by all 23 families interviewed. Achievements in education were considered an honor to the family. Some families even thought that having a child in college was more important than having a family income exceeding 10,000 yuan (a figure signifying wealth). More significantly, the education of female children is receiving more and more attention. At the time of writing, Dongyao had two youngsters attending college, and both were female. In the eyes of many farmers, to leave the countryside and find a job in the city is the best opportunity that a child of farmer parents can have, and that in part explains why they consider the education of their children to be important.

There is another reason to emphasize a daughter's education. Farming households believe that the best way out of rural poverty for their daughters is to marry a good husband; and to marry a good husband, one has to have a good education. Unlike her male siblings, who are expected to inherit the family property and carry on the family name, a daughter will leave the family sooner or later and therefore needs a good husband to maintain her own well-being. On the other hand, farmers have learned that education plays an important role in agricultural production (see box 6).

Box 6: Impact of education

During the interviews, the researcher was constantly reminded by the villagers: "What a difference education makes. Look at the Wangs [they have a high school education]. They work the same type of land as we do, yet their income is higher than ours." The Wangs themselves confirmed the importance of their schooling: "Education is important. In our case, education is a pivotal factor for our getting better results in our agricultural activities." The Wangs read every issue of *Farmer Digest*, a state-published bimonthly targeted at farmers, which carries articles on agricultural technologies and market information. They learned how to grow watermelon by reading studies presented in the magazine, for instance, and have had good harvests and high returns.

5. RURAL INDUSTRIALIZATION AND WOMEN'S CONTRIBUTION

5.1 INDUSTRIALIZATION IN DONGYAO

As a result of the transformation of the organizational system of agriculture from the commune to the household responsibility system, the agricultural labor force was divided into household units. Village-owned industries started to develop at about the same time. While the change of production organization freed large numbers of surplus laborers from land-based activities, the formation of industries provided a new outlet for these workers. This movement of labor from agriculture has provided rural industry with its necessary labor resource, and it is significantly changing both the structure of employment in rural areas and the lives of farm families. Between 1981 and 1991, Dongyao started five village-owned enterprises (a tin factory, a knitting mill, a plastics factory, a cardboard-box factory, and an artificial diamond factory), which have profoundly influenced the economic development of the village, the progress of the resident families, and the division of labor within the individual households.

Industrial income follows the mainstream of Dongyao's economic development. By the end of 1991, the earnings of village-owned enterprises had reached ¥196,955.20, amounting to 54.58 percent of Dongyao's total income of ¥360,856.34. Agricultural income made up 45.42 percent of the total. As of 1991, 513 laborers resided in Dongyao, of whom 373 were involved in agriculture and 164 worked in village-owned enterprises. Among the village's part-time agricultural households (about 25 percent of resident families), nonagricultural income accounted for 40-50 percent of total family income.

With the development of village-owned enterprises, Dongyao saw itself in a better position for investing in its agricultural production. Since 1981, Dongyao has spent more than 200,000 yuan to purchase farming implements and has added 26 new machine-operated wells, thus greatly improving the conditions for farming. The village is investing its industrial earnings in agriculture.

Since 1982, Dongyao Village has also used its industrial earnings to renovate the village's central elementary school, provide funding for an all-farmers'-children wind band, and pay educational taxes for the households (this last expenditure amounts to 30,000 yuan annually). In addition, the village has repaired old roads and built new ones, improving the living environment of the village.

5.2 THE IMPACT ON WOMEN'S WORK AND LIVES

Industrialization is a critical step for the development of a market economy in the rural areas and is changing the role that women play in society. The biggest change that the industrialization process brings to a farming community is to loosen the traditional bondage between the farmer and the land. But the extent to which the bond is eased is not the same for both men and women. In the case of married women, who shoulder the burden of household chores in addition to farmwork, attachment to the land remains the same. For young, unmarried women, the slackening of the bond does occur—but, even then, it is only temporary and contingent upon their single status.

Industrialization has indeed provided new employment opportunities for the younger women. Although it was a giant step forward for women in rural northern China to change their status from housewife to farmer, it is an even bigger step for a farmer to become a factory worker. The latter is especially true for women. Among Dongyao's 164 factory laborers, 101 were women, or 61.6 percent of the total.

The women employed by nonagricultural industries tend to be better educated than their farmer counterparts. On average, the women workers in Dongyao's five factories had received a junior high-school diploma, while only 38.3 percent of those remaining in farming had that much schooling. However, this may be a function of the younger ages of women who are factory workers.

For all types of work, generally speaking, garment cutting, cardboard making, supervising, and operating machine tools are regarded as skilled occupations, and only 15 percent of those doing skilled work were women. Most women were assigned to unskilled tasks, and they earned salaries that were about 75 percent of those received by their male coworkers.

The average age of the 101 women employed in Dongyao's factories was a little over 20 years. Moreover, 90 percent of them were single. Generally, 95 percent of female workers quit their jobs upon marriage, for an overriding purpose for their factory employment is to earn themselves a dowry. Once married, they retire from the factory jobs to take care of their families and assume farming responsibilities.

These characteristics of female industrial workers accompany the temporary—and thus insignificant—nature of the change in the social role and status of women. Almost all the women employed in Dongyao's five factories were short-term employees. The fact that they worked to earn themselves a dowry while they were unmarried did not meaningfully change their societal role. The temporary nature of their employment may partly account for the fact that few women do skilled work.

6. WOMEN'S CHANGING ROLE IN AGRICULTURE

The combined effect of the HRS and rural industrialization is that women have gradually come to form the main labor force in agricultural production.

In the era of the commune system, more than 60 percent of rural women took part in agricultural production on collective farms. But the kind of work they performed tended to be labor-intensive and requiring little skill or training. At the time, there was a saying that jobs demanding skill were made for men; unskilled work was made for women.

Under the HRS, agricultural activities are organized and carried out with the family as the basic operating unit. Accordingly, the division of labor is also confined to the family. In Dongyao, 75 percent of the households work full-time in agriculture. In these households, both husband and wife participate in production activities and observe the traditional pattern of labor division—men doing skilled work, and women, unskilled work.

Over the past ten years, however, women have begun doing work with which they were never previously associated. The development of nonagricultural industries in the rural areas has caused the recruitment of a labor force consisting primarily of men and unmarried women. This left married women behind to take care of family-based agricultural production. In Dongyao, about 25 percent of the households fall into this pattern. In these families, married women not only plan and execute almost all agricultural production, but also, in the cases where no help is available from grandparents, raise poultry and do household chores.

Under the auspices of village-run enterprises, the Dongyao Economic Cooperative has purchased some farming implements. At the time of writing, Dongyao has three tractors, one 75-horsepower planter, and three rotating plows. The Cooperative coordinated plowing, planting, and harvesting at the village level, all done with machines. Meanwhile, other production conditions have also seen significant improvement. For example, when Dongyao redistributed its land in 1981, the village had only twenty-eight machine-operated wells, with more than 100 mu of land relying on one well for irrigation. At that time, quarrels among relatives were common because households competed with one another for limited water resources. Now the village has fifty-four machine-operated wells. The improvement of production conditions has helped women become the main labor force in agriculture.

Table 6.1 describes the changes in work patterns and transfers of tasks between male and female laborers before and after 1982, when the rural reform started in Dongyao. The data are then analyzed from four perspectives.

TABLE 6.1

Division of labor between males and females, before and after 1982

LABOR	DIVISION OF LABOR					
	Before 1982			After 1982		
	F	M	All	F	M	All
Housework:						
Cooking	*			*		
Washing	*			*		
Shopping for consumables			*			*
Cleaning	*			*		
Taking care of old parents	*			*		
Baby-sitting	*			*		
Child education				*		
Storing grain and vegetables in a cellar		*				*
Carrying water		*				
Food processing		*				*
Feeding livestock	*			*		
Trading produce in farmer and state markets		*				*
Building houses (building with walls, using bricks)		*				*
Building houses (setting a roof beam)		*		*		
Digging wells		*		*		
Transporting produce by bike or tractor		*				*
Using household electrical appliances				*		
Agriculture:						
Seed selection	*			*		
Plowing		*				*
Guiding the plow		*		*		
Sowing seeds		*		*		
Raising seedlings			*			*
Making beds for planting		*		*		
Weeding			*			*
Spreading fertilizer			*			*
Spraying insecticide			*			*
Irrigating fields	*			*		
Managing pumps and farm machinery		*				*
Driving a cart or a tractor		*				*
Digging irrigation ditches		*		*		
Constructing reservoirs		*				
Building railways and roads		*				
Molding adobe blocks—mixing mud		*				*
Molding adobe blocks—carrying shovel	*					*
Molding adobe blocks—trawling blocks		*				*
Harvesting grain			*			*
Shelling, threshing, and drying grain	*					*
Winnowing, sifting, and grinding grain	*					*

Putting grain in storage	*	*
Delivering tax grain to the state	*	*
Feeding draft animals	*	*
Nonagriculture:		
Village industry		*
Managing industrial operations		*
Transportation		*
State employees	*	*
Service/trade (running restaurants and shops)		*
Construction	*	*

(1) The changes in division of labor between male and female since 1982

There are three basic categories of labor, namely, housework, agriculture, and nonagriculture. The traditional principle for dividing work is the same across all labor categories, that is, skilled tasks for men and unskilled tasks for women, and remains largely unchanged. What has been revised is the definition of "skill." Furthermore, new tasks have been added to the labor domain.

Changes in the living conditions of the household have resulted in adjustments in housework. For example, before 1982, farmers had to fetch water from public wells at long walking distances from their homes. Now, that burden has vanished since every family has a pump well in its yard. Furthermore, over 80 percent of the households have TV sets (and 20% are color sets, which were considered luxury items only a few years ago). About 25 percent of the families have washing machines and 5 percent have VCRs. Therefore, operating and maintaining these valuable household electrical appliances has become a new task, reserved mainly for men.

The clearest changes in household chores affect tasks once done only by males but now done also by females—for example, storing grains and vegetables in a cellar, food processing, trading produce in farmers' or state markets, building houses and walls (with bricks), and transporting produce by bike or tractor. But the house tasks customarily done by women are still women's work—for example, cooking, cleaning, washing, taking care of elderly parents, baby-sitting, children's education, and feeding livestock. On the one hand, women's participation in the work of the family is obviously broader than before; on the other hand, women's burdens are clearly heavier.

In agriculture, the concept of "skill" has altered. Some jobs formerly thought of as skilled have been transferred from men to women and are now characterized as unskilled—for example, plowing, managing pumps and farm machinery, driving a cart or tractor, molding adobe blocks and mixing the mud, putting grain in storage, and feeding draft animals. These

jobs used to be regarded as so heavy and as requiring so much skill that women were not allowed to try them.

Industrialization brought new tasks for both men and women. Before 1981, there was no industry in Dongyao. Occasionally male members of the commune had been assigned to a construction team by the production brigade for work in nearby towns or on construction sites. Legally, both men and women had equal opportunities to be employees in the state's or the county's industries. In reality, however, the opportunity for a woman was nil unless she were admitted to a university; then, after graduation, she could be assigned by the government to be a city resident and a state employee. Now, with the rapid development of village-township industries, women have had more economic opportunities. They have been able to work in the local enterprises and to be saleswomen. Yet, few women reach the managerial level in the factories of Dongyao.

(2) Reasons for changes in the division of work between men and women

The changes in the division of labor between men and women are directly related to changes in the economy of Dongyao.

Because agricultural production is based on the household economy, housework and agricultural activities must be coordinated within a family. Men, especially the head of household, are customarily responsible for the important matters in the family's economic operations. Due to the improvement in both economic and living conditions, the nature of these family economic activities has been dramatically changed, as has the division of housework.

Women now assume some of what were once considered to be male responsibilities, that is, tasks that were important or even vital to the family. For example, the storing of grain used to be a man's job simply because grain, partitioned and distributed mainly according to accumulated work points by the production brigade, was vital for the subsistence of the whole family. Storing grain is less important nowadays, since almost no family lacks grain for food. Men have been "upgraded" to what they consider to be more important jobs, such as operating and maintaining household electrical appliances, while once important tasks such as storing grain have been "downgraded" to women.

Since the land was distributed to families, the principle for dividing agricultural production has also been changed: "enough for the state's quota, sufficient for the collective's share, all the remaining for the family." The volume of the remaining portion is related to the total volume of the family's production. This market-economy-oriented production and distribution system has provided strong incentives for rural women to participate in agricultural production.

In addition, flourishing industrialization in rural areas has attracted and absorbed large numbers of male and young female workers to industry, leaving the burdens of agricultural production to married women.

(3) Disappearance of some of the public labor duties of the commune system

During the study period, it was observed that some of the public labor duties, such as constructing reservoirs and building railways and roads, had vanished from the family's work list. Under the commune system, members had been awarded work points for their labor, even for public duties. For the farmers, therefore, it did not matter which work was done, but only how many work points could be earned. After the reforms, the specific task performed made a difference, and the state or the collective could not ask the farmers to work on public projects without fair compensation. Hence, public labor duties, which used to be part of the family's normal work schedule, are becoming nonagricultural businesses.

(4) Restrictions on women of traditional ideas and customs of division of labor

Although significant improvements and changes have been taking place in the rural women's lives, there clearly remain many restrictions imposed by traditional ideas and customs on women's roles in housework, agriculture, and nonagricultural work. Women are still not allowed to participate in some production or household activities even though the labor involved is not beyond their physical abilities. For example, women are not allowed to set roof beams when building a house, nor are they permitted to dig wells. In fact, they cannot even watch the processes due to the belief that if women were allowed to watch, the house would collapse and the well would dry up. Guiding the plow and sowing seeds are also still not women's work, since many people believe that women's doing these tasks would result in poor crops. These jobs were skilled work and earned top work points during the commune period. Today, they are still considered as skilled and, hence, not women work.

7. PROBLEMS FACING WOMEN

From the study of Dongyao Village, it can be seen that the role played by women in rural China has changed dramatically. According to the official history of Yutian County, women knew very little about farming before 1947. Regardless of their family background, women only picked cotton or beans, gathered firewood, and helped dry grain in the sun. In men's eyes, women were made to be housewives. They did all the household chores, took care of their parents-in-law, and raised children, but their work was never regarded as value-creating; they received no pay. Even when women did provide auxiliary labor in the family's agricultural activities, their contribution was never given due credit.

Since Yutian was liberated in 1947, the Communist government has encouraged rural housewives to come out of the house and participate in agricultural production side-by-side with men, and it has viewed their doing so as a symbol of the liberation of women. In Mao's China, rural women had come a long way from being the victims of social customs such as foot-binding, being child wives, and enduring parent-in-law suppression. Whereas previously women had enjoyed no right of inheritance, they now have the same legal rights as men and are able to participate in social, economic, and political activities. Although in practice women's pay was never more than 75 percent of that received by men, the government was sincere in initiating and seeing through its policy of making rural women as much commune members as men, receiving the same pay as men for the same amount of work. It is fair to say that Mao's policies helped women obtain basic rights to work and to receive an education.

In Yutian's specific case, the commune system era saw two high tides of government assistance to women by socializing household chores. The first wave came when the people's commune was introduced in Yutian, and public mess halls were built and kindergartens started. The second surge took place in the mid-1970s (amidst the so-called "Agriculture Learn from Dazhai" campaign), when the "Three Hua's" movement was staged: rice and flour were to be machine-processed, clothes were to be machine-sewed, and children were to be cared for in kindergartens. Although these social services did not last long, they helped in a very practical way to ease the burden of rural women.

Since the HRS was initiated in the early 1980s, women have been presented with more opportunities than they ever knew existed. Now women are not only participating in all sorts of agricultural activities, but also organizing household sideline production in response to market demand and, in so doing, contributing to family income in a very tangible way. Moreover, a majority of unmarried women now can enter nonagricultural industries. At the current stage of development of village-owned industries, most women are still limited to finding employment within the boundaries of the village, but this is temporary. One cannot overestimate the significance of women beginning to see opportunities beyond agriculture and even beyond village boundaries. Rural women are awakening from their passive past and, for the first time, recognizing their true independence.

The above having been said, however, women living in today's rural China now face new problems.

7.1 THE NEED FOR BETTER COMMUNITY SERVICES

Women shoulder the dual responsibility of taking part in production and doing household chores and caring for children. Society tends to see that dual responsibility as women's natural duty. Under Mao, production was assigned the top priority for political reasons; in today's rural China, production is being assigned the top priority because it is directly related to the market economy. While Dongyao's women are being presented with more opportunities, they also face the problem of being overburdened. The women's overload problem is due to the following two factors.

(1) They work too much in the field. This is especially true of those households in which both husband and grown children work in the factories. In these households, the women do all the fieldwork, and only in busy seasons—like planting and harvesting—do they get help from their husbands, children, and relatives.

(2) They lack help from social services. All public services that existed in the commune system era—like kindergartens, public mess halls, and "barefoot doctors"—have disappeared with the dissolution of the old system.

A reasonable way to solve the work overload problem is for the village to develop community services, which could include food processing, baby-sitting, clothes-making, health care, and geriatric nursing. One pitfall that should be avoided is the so-called "communist-style, charge-free" services prevalent under the commune system, which provided assistance that was ill-conceived in the first place and did not last even through the initial stages. The services should be fully compensated. As for technical issues such as how much to charge and how to pay, many options could be explored. At Dongyao's present level of economic development, the farmers can neither afford nor sanction elaborate and high-priced services.

Baby-sitting provides a good example. Farmers need childcare during the busy seasons only; yearlong baby-sitting is neither necessary nor affordable. Being aware of that, the village could establish seasonal day-care services during the summer and fall busy seasons by organizing high-school students, who are out of class during school recess, as well as elderly people, who can no longer work in the field but are still able to look after children. By providing such services, the village relieves the women of two responsibilities—taking care of the children and cooking lunch for them.

Another area in which the village could start providing a service is food processing. In Dongyao, there are already a few privately owned food-processing mills which are engaged in rice and flour preparation, saving women the considerable labor that was necessary when

more primitive processing methods were used. But cooking is still done in a very traditional fashion in Dongyao. Since all households share the same cooking style and methods and every household cooks more or less the same dishes every day, a community food-processing service to provide semifinished products is readily conceivable. The service could be either based on barter or paid for in cash, thus improving its sustainability and popularity among the farmers. By making use of unused labor scattered among many households, the service would save on fuel and agricultural equipment as well as on labor and cost.

7.2 WOMEN'S EDUCATIONAL NEEDS

The limited education women have received is more and more an obstacle in their struggle to grasp the new opportunities coming their way. Of the generation of females currently at the parenting age, women have on average received 3.6 years of schooling, while the men on average have received 6.2 years. Judging either by age or by the role this generation is playing in the household economy, these women are the backbone of households. But because they suffer from a poor education, their development opportunities are limited.

When asked about educating the next generation, more than 50 percent of the parents indicated that they were willing to pay however much it took to support their children's going to college, if the children would study hard enough to make their way to that level. Farmer Zhou Lianfu, for instance, had a daughter going to college, and supporting her for a semester made up one-third of the family's total yearly expenditures.

The fact that girls of the next generation are receiving a better education than their mothers, indicates that education has begun to be valued in the rural areas. Governmental support is needed to encourage this trend. History has proved, time and again, that education is the key to improving women's social status and finally their liberation.

If young women in the rural areas are not well educated, they will not be able to play a significant role in local development in the future. In fact, education is not yet considered as important and valuable as it should be. Two young women who taught at the village's elementary school were among those interviewed. They reported that their monthly salary was between 70 and 75 yuan, less than the average amount received by a factory worker (about 100 yuan/month). Such low salaries paid to teachers are no help in sustaining educational quality and encouraging people to pursue further schooling.

7.3 CREATING BETTER WORK OPPORTUNITIES AND CONDITIONS FOR WOMEN

In the part-time agricultural households of Dongyao (25% of the total), the women shoulder the responsibilities of agricultural production, sideline production, and household chores. In today's rural China, much of this women's work is still done in the traditional,

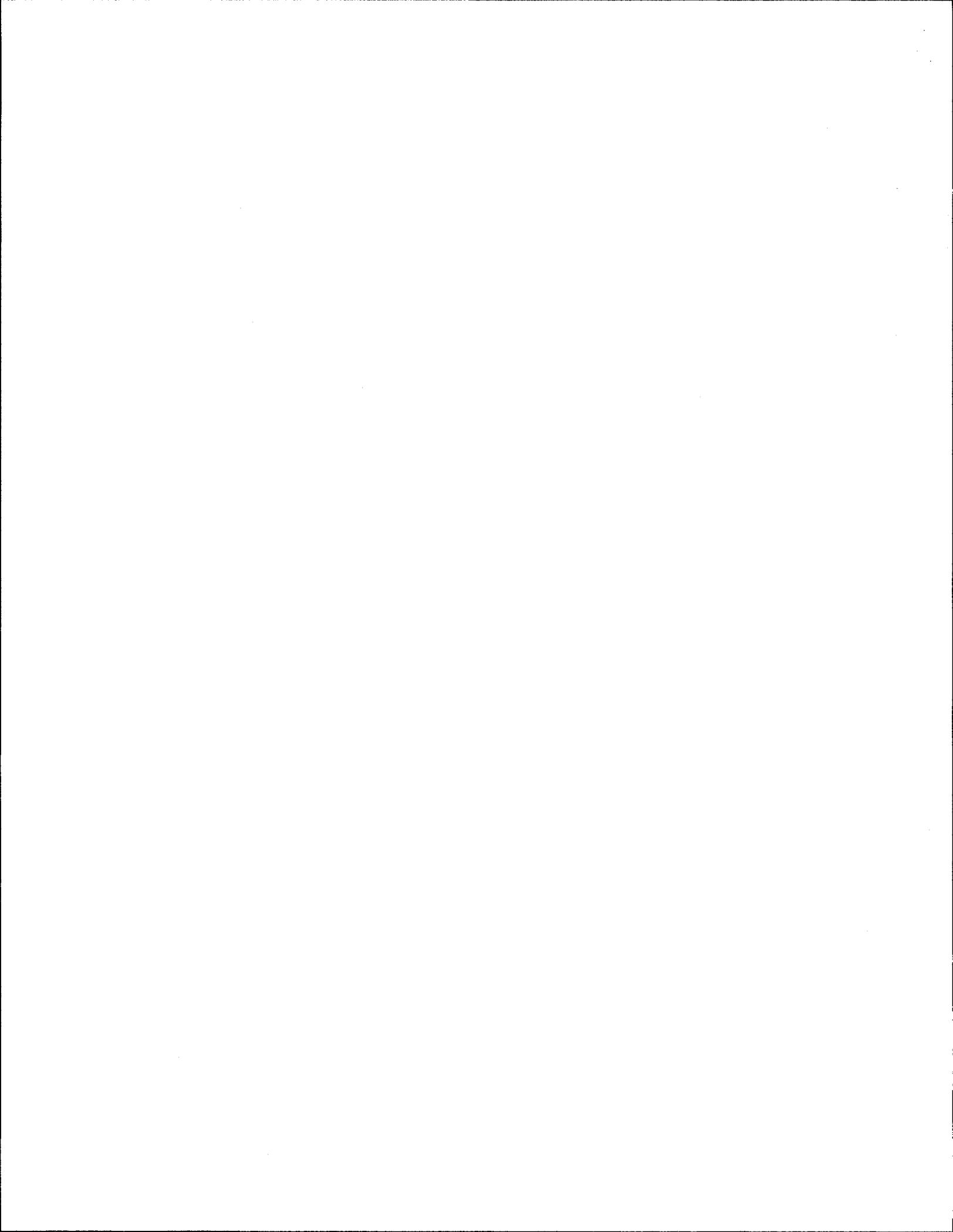
manual fashion, which is detrimental to the women's health. In a conversation with a practicing physician in the Dongyao Village, it was learned that the percentage of women contracting nephritis, appendicitis, and metroptosis was still high. When we address issues such as developing community services and improving education, we should also seek ways to improve the women's working and living conditions in very practical, health-ensuring terms. Until better conditions are created, the day of real liberation for women will never come.

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APPENDIX 2
BASIC STATISTICS OF DONGYAO DATA

TOTAL OBSERVATIONS 123					
	FAMILY	AGE	SCHOOLYR	HOUR	LAND
N OF CASES	122	120	122	73	22
MINIMUM	1.000	2.000	0.000	8.000	4.500
MAXIMUM	23.000	89.0000	13.000	16.000	16.600
MEAN	11.811	34.833	4.861	11.151	10.108
VARIANCE	46.452	454.577	13.013	7.435	9.319
STANDARD DEV	6.816	21.321	3.607	2.727	3.053
SKEWNESS (G1)	0.030	0.563	0.050	0.387	0.391
C.V.	0.577	0.612	0.742	0.245	0.302
	INPUT	OUTPUT	GENERATI	WHEATIN	WHEATOUT
N OF CASES	19	20	22	16	16
MINIMUM	469.000	1040.000	2.000	280.800	600.000
MAXIMUM	3450.000	11130.000	4.000	982.800	2520.000
MEAN	2033.632	4778.450	3.000	561.934	1297.525
VARIANCE	776557.023	8857098.576	0.571	30627.915	226723.119
STANDARD DEV	881.225	2976.088	0.756	175.008	476.155
SKEWNESS (G1)	-0.254	0.566	0.000	0.736	0.771
C.V.	0.433	0.623	0.252	0.311	0.367
	CORNIN	CORNOUT	CROPIN	CROPOUT	AGRIIN
N OF CASES	18	18	16	16	14
MINIMUM	226.000	500.000	506.800	1276.000	1221.40
MAXIMUM	791.000	1750.000	1416.950	4060.000	4743.550
MEAN	371.047	951.476	948.993	2300.748	2861.459
VARIANCE	18948.293	105137.741	69000.628	526765.524	1026255.488
STANDARD DEV	137.653	324.250	262.680	725.786	1013.043
SKEWNESS (G1)	1.553	0.829	0.137	0.667	0.217
C.V.	0.371	0.341	0.277	0.315	0.354
	AGRIOUT	MEANEDU	HOMESIZE	TOTALEDU	AGROUTIN
N OF CASES	15	22	22	22	14
MINIMUM	2316.0000	2.400	2.000	9.990	580.180
MAXIMUM	15190.000	8.000	10.000	60.960	10446.450
MEAN	6797.031	4.987	5.545	26.953	4093.931
VARIANCE	.127443E+08	2.684	3.593	150.586	8082660.443
STANDARD DEV	3569.918	1.638	1.896	12.271	2843.002
SKEWNESS (G1)	1.013	0.455	0.422	1.479	0.971
C.V.	0.525	0.329	0.342	0.455	0.694
	ANNUALIN				
N OF CASES	122				
MINIMUM	0.000				
MAXIMUM	24000.000				
MEAN	1262.951				
VARIANCE	.118746E+08				
STANDARD DEV	3445.951				
SKEWNESS (G1)	4.689				
C.V.	2.728				