Analysis of Agricultural Economy and Environmental Change in GanSu Longdong Province in the Qing Dynasty

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Keywords: Qing dynasty, GanSu Longdong, Economy, Ecological environment.

Abstract. Qing Dynasty due to the impact of war and natural disasters, Gansu Longdong's economy, population, society suffered heavy losses, low level of development of productive forces. Experienced the Kang Yong dry three hundred years of recovery and development, Longdong agricultural economy has a greater development, but the ecological environment degradation. Tongzhi years due to military chaos and famine, Longdong economy and the environment once again undermined, Guangxu Longdong situation and Junji period quite, to restore social production is facing great pressure. The economic development of Gansu Longdong area in the Qing Dynasty has been in a low state, and the environment has been badly damaged. This has a great relationship with unreasonable development and overdevelopment and war factors.

Introduction

First, in the socio-economic development, the natural environment and economic development interact. This is reflected in the early Qing Dynasty, the early Qing Dynasty Gansu Longdong area desolate, poor and backward. In order to restore the economy as soon as possible, large-scale development, excessive development of agriculture, arable land and the rapid increase in the number of population, the people for the livelihood of a large area reclamation, forest vegetation destroyed, land degradation, agro-ecological environment tends to deteriorate, Leading to the destruction of the ecological environment.

Second, the rapid increase in the total population will inevitably lead to a sharp decline in per capita land use. In the traditional agricultural society in order to survive, increase the grain yield of the main way is to carry out the land reclamation, blind reclamation results caused by the deterioration of the ecological environment. Due to the destruction of the ecological environment, the development of land productivity decline, the people of the necessary production and living conditions gradually deteriorated.

Third, the late Qing Dynasty due to the impact of war factors, agricultural and economic environment in Longdong region has also been greatly damaged. Under the influence of various factors, people's lives are extremely poor, in order to change the status quo of poverty, at the time of the level of productivity, can only further expand the number of land use. Therefore, a large number of reclamation to make the ecological environment more fragile, natural disasters also increased.

Measures of Agricultural Economic Construction in Longdong in the Early Qing Dynasty

In the early Qing Dynasty, the development of social production was low due to the war, and the road of economic recovery and reconstruction was facing great difficulties. Difficult to attract migrants, encourage reclamation and water conservancy is the main measure to restore and develop the agricultural economy, and achieved great results.

Recruit People Reclamation Field

After the peasant war in the late Ming Dynasty, the early Qing Dynasty national population is scarce, land barren. Junzhi six years, edict of the country: "Where the local officials to attract people everywhere, regardless of the nationality of the family into the Baojia, reclaim the wasteland, to the letter of credit, Yongzhun for the industry." [1] In the place, the town of the
original county magistrate Cui Yingfeng Shunzhi two years after the arrival of "summoned exile, hard work to ask the word." Du Jiyuan in Junji nine years after the appointment of Anhua County, "Zhao Fu escaped, add eight hundred feet, open to more than 700 hectares of land." [2]

In order to restore the economy in the early period of the Qing Dynasty, the court formulated a series of preferential policies for reclamation. Such as the first year of Shunzhi (1644), set the "reclamation of wasteland case" to allow land reclamation for a long time, "three years from the Branch." [3] The Qing Dynasty provides: "the state to recruit people to recruit the number of pros and cons for the pros and cons, the government to instruct the diligent ground for the most diligent, the end of each year, according to the press according to respectively, 4] Kangxi early years, the Qing court to speed up the speed of reclamation, strict provinces "first since Kangxi two years (1661) for the beginning, five years Ken finished." [3] In line with the reclamation, Kangxi seven years: "New reclamation of three years from the beginning, the pioneers of five years from the Division, the great shortage of people never starting." [5] ten years, and further relaxed, Three years later and then one year from scratch. "Eleven years, "wide to six years later". [1] to twelve years, starting range for 10 years. [5] Emperor Yongzheng, the court continued to implement the policy of rewarding reclamation, to take the main method is to postpone the reclamation of the recruiting period, such as the provisions of paddy fields for 6 years, 10 years to pay fields. In this regard, Qianlong "is Ningxian Zhi" records: "financial good law, Mo good at persuasion, and diligent side, it is not as good as today also. Husband paddy field late to six years, "These measures have played a certain role in promoting the restoration and development of the national agricultural production in the early Qing dynasty." [6] These measures have contributed to the promotion and development of the national agricultural production in the early Qing Dynasty.

In the local, Longdong some state officials also due to local conditions, corresponding to take some reconstruction measures. Such as Yang algae in Shunzhi fourteen years as Qingyang prefect, after the recruitment of exile, reclamation land reclamation. [2] Until the Qianlong period, there are still local officials planning to reclaim the remaining wasteland: Luo Chuan (Zheng Ning old) since the county east sixty miles away, all can cultivate the field, its terrain is higher, or caught in the foothills, or Is located in the plateau Fu, reclamation is not easy, while the fool and used to ease, is to wait and see. I do not know how to infinitely, the years of labor, and the benefits of permanent benefits, But in the strength of the Secretary to persuade, in order to wild no soil, people have Sunny, the two people have the benefit of the people's livelihood! [6] The positive effects of these initiatives at the time on the restoration and development of local agriculture.

Water Conservancy Construction

In the early period of the Qing Dynasty, in order to restore agriculture, promote production and stabilize society, some local officials also pay attention to the study of farmland water conservancy, trying to local conditions, development and geography. Qianlong forty-one years (1776), Qingyang prefect Zhou Renjie see the Qianlong, the proposal:

In the river, more open ditch to sub-Yellow River water potential, cited irrigation field, in the dry land is really useful. Its no river, in case of rain, open the pond ditch, so that the high places of water to stay, can also moisten the soil pulse, long hair seedlings. The people and so on in the comfortable, dread in hard-working, each due to waste water. If the state and county buildings around the dam, there are pond, the northwest of the water, stop at once. The upper reaches of a sub-water, that is, southeast Huaiyang area of yellow water, also a little less water. [4]

Is the county confessed to the analysis of the county land resources and water use of the situation: "to the words, although the water is not plump, although the soil is thick and good dry, this year's life, tomorrow can not be re-species, that "[6] and further concluded that:" mountains and rivers of Sichuan Ze, the natural beauty of the world, and the county within sixty miles, a look Tong Fu, although the town can be Qiao, Tao Yuan Mo. Ten years of trees, Gu not urgent Zai? Comprehensive assessment, through the county to acres of land Fu, ten of the four convex and concave, ten of five Pingchuan, There are Luo Chuan Chitang water, east of the folder Valley, hard to lead irrigation, should be imperful and impermanence and the people of the exhausted also! Yu
Rong Ren, advised the township to plant trees no less than tens of thousands of trees from the beginning. But also the water conservancy section, the plan is not caught; to the county of things in terms of two rivers, approaching Luo Chuan, there can also barely lead the irrigation, the nuclear test to pick up dredging, for the fee. Lead the way, then the cost of the channel, several times the value of land; if the official for the donation, then non-single-handedly strong and can not be happy, what words to thank Old? "[6]

It can be seen that these officials have an in-depth investigation and understanding of the use of local land and water resources. Their views on the local agricultural management, no doubt has an important guiding role. The Kang Yong dry three hundred years of hard work, the population surge, wilderness to make up, Longdong's economy and society has made great development.

**Economic Destruction and Reconstruction in the Middle and Late Qing Dynasty**

War often causes a sharp drop in population and destruction of production. Tongzhi years, Shaanxi and Gansu back to the land after the Longdong area no man farming, famine year after year, the population dropped. "[7] but" from the text of Xianggong drive away from the Shaanxi eighteen camp, Artemisia lily everywhere, the dog silent", but also in the area of food and water, [7] Production has been greatly damaged.

**Economic Damage**

Shaanxi and Gansu to change the civil affairs, to settle the Incident of the official "division of the line, well Yi is barren, water dried grass dry, thieves and so many deaths, the official army and therefore difficult to chase." [8] During the Incident, not only the Hui army attacked the city, grab the food and property, to repel the army of the Qing army and Yong Yong also participated in the looting, and the people fight food, there is a "Gansu people, early trapped and thieves, trapped Yu Bing, home can not be safe, no escape "situation. [9] government is the county, damage is also very serious. Local Chronicles records: "After the city is located in the city of the city, the people are the worst of the country, the official government, burned the net to the chaos after the preparation of the aftermath, the local officials are living by the root of the kiln." [10] In April the same year, the Hui army captured Zhengning county, "hate no income, Tu burn clean, the city was into a red." [10] Dong Zhiyuan area, to the Hui army "Ju long time, where the gap between the gully, the people can go, thieves ride all gone, so lucky off less." [10] At that time, "go to Shaanxi Road, but also to make the plug collapse, easy food." After the chaos is sent to the official ruthless rations, "a few months into a smooth way", transport grain fleet through. [10]

After experiencing the Tongzhi Hui Muslim Incident, the situation faced by the Longdong area during the Guangxu period was almost the same as that of the Junji period, and the rural economy was severely damaged in the Tongzhi war and the population dropped to the lowest point. Plus the three years to four years Guangxu (1877-1878) of the "Ding Wu Qi wasteland" to Longdong economy in the Tongzhi war again after the blow, which makes the pressure to restore social production is enormous.

By 1906, the Longdong field was barren and the sparsely populated situation was still visible, and the visiting CD Bruce team had described it: During the journey, we saw that the Hui people rebelled in northern China The area suffered heavy damage. These desolate remains still exist, the ancient abandoned towns are still living, but the past is no longer exist brilliant. The village has become a ruin, the walls become a pile of loess, the town has become arable land. [11]

Two years later the Clark expedition also said: "These new settlers have not been able to erase the horrific imprint of the catastrophe." [12] The late Qing Dynasty Gansu Longdong economic development level is still low, population It takes time to recover from the economy.
Economic Reconstruction

In order to solve the population problem, Zuo Zongtang decided to attract refugees and Guangxing reclamation after settling down the civil affairs of Shaanxi and Gansu in order to solve the population problem in the Longdong area after the war, which affected the economic and social development of Longdong. He will have been entrusted to Dong Fuxiang become gang bandits, now return to Pingqing membership refugees back to their homes, these people in order to avoid the Muslims, forced to leave their homes, was forced to become bandits, most of the move has been placed in the northern Shaanxi area. The Zuo Zongtang pointed out: the matter of reason, the refugees and other Benping, Qing area of people, take this time early Qingyang area, the ground farming, the future of Gansu will be eliminated, the various industries, Shu from the displaced; its extension (An), Sui (Germany) local people can not avoid the Department of suspected, caused by the soil, off the bank; and the lawsuit once again, also how much labor costs, how much effort, sincere and three good Yan Yan also. [13]

To this end, he developed a specific method: "in Suide, town (Jingbao), Jing (side) where the accumulation of refugees everywhere, a notice, so that Ping, Qing, Jing, solid refugees everywhere. Before Suide received half a month of grain, issued to the escort, fill the number of accounts; than the back to the seeds, made food, the governor of its cultivation. [13]"

In the Zuo Zongtang's call and help, "Qingyang, Anhua, Hefei, Ningzhou, Ning is the refugees and Dong Zhiyuan refugees, many of the returnees, relief to the kind of day, issued to the escort, fill the number of accounts; than the back to the seeds, made food, the governor of its cultivation. [13]" Two years later, Zuo Zongtang wrote to the court in a memorial: "Now Ningxia, Pingliang, Qingyang, Jingzhou, Gongchang, Qinzhou, state, is actually clear, Ask, cultivate, install, migrate, Bing Tuen, Min Tuen after the bourgeoisie, really has a line. " [13] Zuo Zongtang on Dong Zhiyuan and Qingyang House after the rehabilitation has been gradually effective, which for the Longdong economic recovery and development laid the foundation.

To the 19th and 20th century, the local government at all levels committed to recuperate, rebuild the social and economic order, a large number of immigrants to migrate, Anhua County in Chen Chang Ren magistrate (Guangxu eleven years), "to Qingyang Bing To more barren, then recruit their farmers to cultivate. " [14] "Qingyang County" also recorded the resettlement of immigrants around the situation: "Tongzhi Bing, the local residents died, Sichuan, Henan, Shandong moved to live southwest, Shaanxi Shenmu, Jiazhou moved, [14] 1904 visited the Clark expedition team recorded in Qingyang see immigration situation: Heshui County Taibai town" most residents from Sichuan "[15], Xifeng town" main residence With immigrants from Sichuan and Shaanxi "[15], Qingyang near the city "there are many people from the homes of Sichuan people to settle down. " [15] immigrants around the immigration to a certain extent, enrich the population of Longdong, which makes Qingyang rural economic and social began to slowly recover.

Analysis on the Reasons of Ecological Environment Change in Longdong Area of Qing Dynasty

During the Ming and Qing Dynasties, the forest distribution in Gansu Longdong area was mainly located in the mountainous area. Mr. Shi Nianhai studied the changes of forest vegetation coverage in the area. [16] that the Longdong forest distribution area reduced, the coverage rate further reduced. Therefore, the development of zonal soil and natural vegetation in this area is restricted or changed, thus accelerating the development of soil erosion and valleys, so that the loess of the loess is increasingly broken, forming the face of thousands of gully. In the agricultural society, due to farming reasons, easily lead to changes in the ecological environment. We through the following discussion, we can see that in the agricultural economy-based Longdong society, its ecological environment has been a huge change.

The Relationship between Environmental Change and Reclamation

Gansu Longdong population to the late Qianlong into the rapid growth stage, Qianlong "Zhengning County" records: "Gu Sheng Shibing teeth day by day, increasing, this year's boarding, tomorrow
has been unable to according to those." Pointing out the fact that population growth in Zhengning County is accelerating. Jiaqing "Zhenyuan County" also "soil full can be considered, full of people can also worry about" worries. Just "full" caused "soil full". In the middle and late Qing Dynasty, a large number of wasteland was reclaimed, and the population pressure forced the village peasants to expand to the undeveloped wilderness in order to solve the basic food and clothing. For example: Jingzhou pen peak mountain "forest secret", [17] but "there are Sang Tuo in the valley, the people gathered in the chicken and dogs." [18] At that time the population has been more intensive, smell". In the Jingzhou "Songshan on the Tada domain, flat green and green", which shows that farmland has been extended to the top of Songshan, natural vegetation narrowed, so that in the farmland. The dry, barren loess gully and the hilly hills were reclaimed, and the native sparse shrubs and grassland landsles were devastated and replaced by cultivated land or fertile fields. Some of the native vegetation was destroyed, Slopes are cultivated, vegetation back. But I do not think that the changes in the environment is entirely caused by reclamation.

Environmental Change and the Use of Living Energy

In the early Qing Dynasty, the forest profile and the local chronicles were reported in the "mountains and rivers", but there was no detailed information on the area of the forest and the coverage area. The information about the forest was mostly described. Longdong area of the forest mainly in the Ziwuling and Liupanshan - Longshan area. Qingyang near the meridian of some of the mountains to preserve a better vegetation. According to Qianlong "Qingyang House Chi" records, Qingyang House north of 120 in the second mountain, "peaks and ridges towering, lush trees, the residents of the rich." [2] is located in the county seventy miles of Fengchuan is "clear more gulls heron". [2] Ningzhou East 100 in the Hengling, "mountain towering, lush trees." [19] Even the western mountains, also preserved better vegetation. Such as located in the western part of the city of Jingshan 110, "deer deer ape." [2]

Early Qing Dynasty Liupanshan - Longshan forest cover is also better. Pingliang County: "Kongtong big town valleys rugged, arable can not eleven, then Kongtong cave...grass of the special, madder dragon whiskers. Pills are shellfish Campanulaceae, wind Bupleurum, ephedra and Notch, Huang Ling Asarum...Big system meandering over a hundred years, the pay of livestock, sheep and sheep, copper and iron Yun Yan, then take the lack of more cost."[20]

Lingtai County, Taishan is also "more odd wood birds"; Cangshan "Berlin green, weirdly"; invisible mountain "Cangsong Cooper holding the towering."[21] Huating County Huajing Mountain "in the birch." [17] Jinhong back to the mountain, "another one Miyama, pine and cypress of the large number of Wai, high dozens of early" [18] Zhuanglang County apricot granite "that Taibai Mountain, built on the White Temple, Gao Gang Hills, trees and trees Yu"; Beishan Temple" that is the Longshan, on the temple, woods Cong Mao. " [Bodhi Mountain "to Bauhinia trees all over the mountain, hence the name of the"; The main mountain "pine cypress cypress, bamboo flowers, Wei Wei gray, green shade"; Jiulongshan "ancient trees thick". [twenty three]

On the Ziwuling, Liupanshan - Longshan forest use has the following records: "Dongshan multi-tree, outsiders and more on this mining charcoal"; [24] Jingning's fish mouth mountain "into the gorge tree trees lush, firewood Diameter access." [23] It can be seen that the fish mouth is the source of the nearby residents' firewood, which is enough to show that one of the causes of vegetation damage is caused by the use of living energy.

Environmental Change and the Development of Animal Husbandry

Gansu Longdong northeast (now Huachi County), the county most of the water, Heiqian Ridge forest area, the town of the vast northern region, animal husbandry still occupies an important position. Farmers outside the plowing, attaches great importance to livestock breeding and grazing. The western part of Huanxian County and the original area of the original town of Zhenyuan is the end of the Ming Dynasty, the early Qing Dynasty still preserved a good plateau grassland, for the development of folk animal husbandry provides a good pasture. In the Republic of China "Qingyang County" records: the county "terrain northeast high, southwest low, northeast Qiaoshan
mountains stretches hundreds of miles, mountains vertical and horizontal, valley rare hills, although less cultivated land, but rich vegetation, Livestock". [14] and thus "no accumulation of reserves... all rely on livestock." [14]

In Qingyang County (now Qingcheng County) Nishikawa area, although the family farming industry, but the proportion of the agricultural economy, as the northwest high. Therefore, the county records: "East and West, the original, although the original Xi phase, still can be kind of wheat, close to cotton, serving the device, compared with the northeast of a little better, and animal husbandry far. This natural discrimination, and manpower How can also be ". [14]

Environmental Change and War

As a result of the Ming Dynasty peasant war and the Qing Dynasty Wang Fuchen the impact of chaos, Longdong area for a long time there is "soil shortage" development dilemma, which to some extent, the ecology of the loess hills has been repaired. Heshui County was captured by the peasant army, "Jing hazy everywhere", [17] abandoned more than 20 years. County so, the countryside is sparsely populated, grassland forest.

The famous explorer CD Bruce in his adventure notes "out of the Western Regions - along the Marco Polo Footprints," a book recorded in the Qingyang city capital to the Ziwuling area ecological profile: "the scenery on the ground immutable: The route crossed one after another ridge, through a valley, but the line of sight, but are trees, shrubs and thorns...in front of this piece of land does gather a lot of prey, than in this All the prey we mentioned above adds up to more. "[11]

"We have never seen so many pheasants in China, some of them on the banks of the river, and some from the hillside to the opposite hillside. Oak, Hawthorn and other fellow trees, wild almond trees, Cedar, evergreen, clove and many shrubs show a colorful scene."[11]

This shows that the same province caused by the sharp drop in population, land abandoned, so that the local ecological environment has been restored, Ziwuling forest line stretched forward, vegetation cover has improved.

Explorer Robert Stirling Clark on July 16, 1908 led a 36-member expedition team from Taiyuan, Shanxi Province, through the Shaanxi-Gansu to Lanzhou, in the "through the Shaanxi and Gansu: 1908-1909 Clark expedition team in North China" Wrote a book: "From the Qingyang House to the east of the trip a few days, along the way to see the scenery is very beautiful long loopholes on the hills filled with tropical plants like lush vegetation, only to the valley, There will be a lot of roe deer coming out on the hills, and there will be a lot of wild birds, including pheasants, quails, snails and a variety of wild ducks, Visible, in some places can see the wolf and leopard left footprint. "[12]

It can be seen that the economic development level of Gansu Longdong area in the late Qing Dynasty was due to historical reasons and the influence of war and disaster. Its development level was still very low, and the ecological and environmental problems were serious and needed to be restored.

In short, the original Longdong area has a better vegetation cover, with the land after the reclamation and deforestation, making vegetation gradually lost, there are war and other factors affect the ecological environment is damaged, the most important reason is the forest vegetation Of the mining speed is greater than its breeding speed, and during the very few artificial recovery, and ultimately only farmland and shrub vegetation and a small amount of forest, environmental change will have a serious environmental crisis.

Summary

Some studies have shown that "under the dual constraints of ecosystem benign thresholds and lack of modern factors of production, as the population continues to grow, it can only rely on the expansion of land use to meet the requirements; the expansion of land volume further aggravates the destruction of ecosystems The decline in the quality of land and the reduction of output, and the survival-driven role of land-use change in poverty and fragility of the ecological environment into a vicious circle of mutual causality." [19]
In the discussion of the relationship between mankind and nature, Engels stood at a high level of history and gave a profound analysis, "he said:" We do not over reduce our victory over nature. For every such victory, nature has retaliated us. Victory, in the first step are indeed achieved the effect of our expectations, but in the second step and the third step has a completely different, unexpected effect, often the first result was canceled. [25] Engels’ s argument sums up the inevitable result of the blind development of the natural environment of mankind, but the seriousness and presentation of this final result are different due to differences in human activity and specific content.

From the relationship between economic development activities and the evolution of the ecological environment, "the ecological environment is the material basis of economic development activities, and economic development activities are the main source of the ecological environment evolution, any period, any type of economic development activities must To adapt to changes in the ecological environment and make the appropriate adjustments "[19], and" economic development activities on the ecological environment have become the main relationship between the two aspects of the relationship between the intensity of economic activity, uncoordinated economic development activities have begun Become a disaster factor." [19]

The entire Qing Dynasty Gansu Longdong economic development has been in a low state, which is unreasonable development and over-development, war factors have a greater relationship.

References


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