



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
<http://ageconsearch.umn.edu>
aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

Increase of Income of Farmers and Herdsmen in Tibet in the New Period

Xuelin YAO¹, Gonggajiabu¹, Xinjian ZHANG², Lianjiu SONG^{1*}, Qianlu SUN¹

1. Department of Plant Science, Agricultural and Animal Husbandry College of Tibet University, Nyingchi 860000, China; 2. Organization Department, Agricultural and Animal Husbandry College of Tibet University, Nyingchi 860000, China

Abstract The disposable income per capita of rural residents in Tibet was 7471 yuan in 2014. There is a high gap with the national average disposable income per capita of rural residents (10489 yuan). Thus, it is urgent to increase income of farmers and herdsmen in Tibet. On the basis of literature in recent years, this paper analyzed methods for increasing income of farmers and herdsmen in Tibet, major factors restricting increase of their income, and approaches for increasing their income. It is expected to provide certain reference for further expanding ideas of increase of their income in the new period.

Key words Tibet, Farmers and herdsmen, Increase of income

1 Introduction

Since the Eighteenth National Congress, in the new period of realizing strategic objective of comprehensively building well-off society, government at all levels of Tibet deeply implements spirit of major speeches of President Xi Jinping, key requirements of Tibet works, especially strategic idea of "running the whole country needs governing the frontier, governing the frontier needs stabilizing Tibet", and implements instruction of "governing Tibet in compliance with laws and building Tibet for a long term" of vice president Yu Zhengsheng. Besides, it constantly increases investment of agriculture-related funds, implements measures for increasing income and efficiency of agriculture and animal husbandry, and further opens new channels for increase of their income. Family income of farmers and herdsmen realizes rapid growth, which improves people's livelihood and ensures harmony and stability of Tibet.

However, the disposable income per capita of rural residents in Tibet was 7471 yuan in 2014. There is a high gap with the national average disposable income per capita of rural residents (10489 yuan). Thus, it is urgent to increase income of farmers and herdsmen in Tibet. Constant increase of income of farmers and herdsmen not only concerns improvement of their living conditions, but also promotes new socialist countryside construction and the well-off society construction. Besides, it is favorable for keeping frontier stability, ensuring sound and sustainable development of Tibet economy. It is also an essential guarantee for Tibet smoothly realizing the objective of building a well-off society. In this study, we analyzed methods for increasing income of farmers

and herdsmen in Tibet, major factors restricting increase of their income, and approaches for increasing their income. It is expected to provide certain reference for further expanding ideas of increase of their income in the new period.

2 Current situations and characteristics of income of farmers and herdsmen in Tibet

2.1 Income mainly comes from sales of primary production means

In recent 5 years, the growth rate of income of farmers and herdsmen in Tibet ranked the first place in the whole country. The per capita net family income of farmers and herdsmen in 2014 increased 0.8 times of the year 2010. The annual growth rate is up to 16%, as listed in Table 1. Increase of income mainly comes from sales of primary production means. Chinese caterpillar fungus is a famous health care product. Farmers and herdsmen in Tibet rely highly on collection of Chinese caterpillar fungus^[1], but the processing industry of Chinese caterpillar fungus is backward and their income mainly comes from sales of raw Chinese caterpillar fungus. The growth condition of Chinese caterpillar fungus is very harsh, and it is closely connected with altitude, vegetation and climate. Chinese caterpillar fungus is mainly distributed in Qinghai-Tibet Plateau areas and surrounding areas. The total annual excavation of Chinese caterpillar fungus accounts for more than 98% of the world, the total yield is 120–200 tons^[2]. The production areas include Tibet, Qinghai, Sichuan, Yunnan, and Gansu. According to estimation of the Agriculture and Animal Husbandry Department of Tibet, the resource volume of Chinese caterpillar fungus in Tibet is about 65–70 tons; according to statistical data at Tibet working conference on December 26, 2012, the yield of 45 tons had total revenue of 3 billion yuan, and the yield in Naqu and Changdu accounts for 80% of total yield in Tibet^[3]. In 2013, the yield of Chinese caterpillar fungus in Tibet was 53.7 tons, while in 2014, the figure was about 30 tons. By now, study is still at exploration stage for cultivation of Chinese

Received: May 31, 2015 Accepted: July 21, 2015

Supported by Tibet Project of Humanities and Social Science Foundation of Ministry of Education (12XZJC790002); Young Scholar Project of Humanities and Social Science Foundation of Ministry of Education (13YJCZH156); Special Project of Philosophy and Social Science of Tibet Autonomous Region (13BJY012)

* Corresponding author. E-mail: 251420332@qq.com

caterpillar fungus through hyphae and artificial breeding of bats and insects, as well as artificial inoculation. The Chinese caterpillar fungus is still precious medicinal plants completely relied on wild growing. Some scholars hold that 1/3 of farmers and herds- men in Tibet obtain income mainly relying on Chinese caterpillar fungus, 1/3 of net income of farmers and herds- men comes from collection of Chinese caterpillar fungus, so Chinese caterpillar fungus has become an essential resource influencing income of farmers and herds- men^[2]. What's more, agriculture and animal husbandry of Tibet also just start and farmers and herds- men obtain income mainly from selling products or preliminarily processed products.

Table 1 Per capita net income of farmers and herds- men in Tibet

Year	Per capita net income//Yuan	Growth over the previous year//%
2010	4138.7	17.2
2011	4701.6	13.6
2012	5719.0	21.6
2013	6520.0	14.0
2014	7471.0	14.0

Data source: arranged according to working reports of Tibetan government

2.2 Transfer of rural surplus labor Since the democratic re- form, Tibet has made considerable achievements in development of science, technology, culture and education, and educational level of farmers and herds- men is greatly improved. However, the overall labor quality is still relatively low. In 2008, the average years of education of Tibetan people reached 6.3, but there is still a large gap with the national average years of education (8.5 years) for the people older than 15 years old. The enrolment rate of higher education and education popularization rate still lag far behind the national level. Due to influence of religious belief and historical culture, there are still some backward ideas in farmers and herds- men, such as deifying natural environment, unwilling to properly develop natural resources, sincerely believing in destiny, and un- willing to pursue wealth but only to wait support and relief. In ad- dition to not understanding Chinese language, most farmers and herds- men remain in weak position when competing with other la- bors flowing to Tibet. In their local region, they have to work in industries with high intensity of labor, low skill requirement and low wages, such as building industry. The proportion of non-agri- cultural labor to rural labor is the primary factor influencing in- come of farmers and herds- men, so it is required to energetically increase transfer of rural labor to cities.

2.3 Policy subsidies of government^[2] In minority areas, Ti- bet is the only one enjoying fixed amount of central subsidies. Ac- cording to statistics, financial revenue of the whole Tibet was only 6.7% of total expenditure. According to economic indicators of Tibet in 1978 – 2008, even if in the year 2014 when the economy realized rapid growth, the financial revenue of Tibet in the first three quarters reached 1.09 billion yuan, and financial expendi- ture was 80.32 billion yuan, the revenue accounts for 13.6% of expenditure^[4]. Tibetan farmers and herds- men enjoy a series of preferential policies, such as fine seed subsidy, direct grain subsi-

dy, general subsidies for purchasing agricultural supplies, fine breed subsidies for livestock and poultry, subsidies for conceding the land to forestry, compensation of ecological public welfare for- est, *etc.* in addition to further preferential policies, farmers and herds- men enjoy more preferential policies. The transfer income of Tibetan rural residents per capita ranks the first in the whole coun- try. Policy subsidies of central government and preferential poli- cies of Tibet are major factor promoting increase of Tibetan rural residents.

3 Main factors restricting increase of income of farm- ers and herds- men in Tibet

3.1 Restriction of natural environment conditions^[4] As we all known, agriculture and animal husbandry rely highly on natural conditions. Natural conditions directly determine production effect of agriculture and animal husbandry. Situated in hinterland of Qinghai-Tibet Plateau, Tibet has special geographical position. Areas with altitude higher than 4000 m account for 86.11% of total Tibet area. High mountains and canyons in the east and plat- eau in north provide Tibet vulnerable ecological environment^[5]. In consequence, Tibet suffers from frequent natural disasters. Common natural disasters, such as landslide, mudflow, snow dis- aster, mountain torrents, and frost, as well as plateau, meadow soil, saline-alkali soil, and desert seriously influence development of agriculture and animal husbandry in Tibet. Then, it will greatly influence income of farmers and herds- men.

3.2 Imbalance of industrial structure Researches have shown that industrial structure of Tibet has following problems: high proportion of primary industry, relatively low proportion of secondary industry, and extremely high proportion of tertiary in- dustry; there are some big structural problems within sectors of in- dustries and between levels of industries, and the output value structure is not coordinated with employment structure^[6]. In other words, the situation of low deviation of industrial structure is seri- ous. The connection between industries is low, and industrial de- velopment is mutually separated. Mutual connection between three industries is relatively weak, industrial chain is loose and short, and the connection relationship is vulnerable. Since peaceful lib- eration of Tibet, industrial policies play a great role in promoting development of industries and evolution of industrial structure. Till the recent times, industrial policy of Tibet starts to become com- prehensive and systematic gradually, but still not complete, lack of powerful and operable industrial organization policies and indus- trial technologies. Economic marketization of Tibet starts later. Small market, weak expansion capability, and indifferent market awareness greatly influence marketization of Tibet economy. The above factors result in difficulty in labor transfer and accordingly influence increase of income of farmers and herds- men.

3.3 Low quality of technical training for farmers and herds- men Agriculture and animal husbandry departments of Tibet al- ways carefully provide technical training for farmers and herds- men. However, training methods and forms are simple. In gener-

al, most areas provide training still in the form of distributing leaflet or giving lectures. There are no modern facilities. Even, some farmers and herdsmen reflect that cadres and technicians just distribute technical materials but seldom provide technical training activities. Due to limitation of cultural quality, farmers and herdsmen have no ability of accepting new knowledge, information, and applying new technology and equipment, lack market awareness, scientific management ability, and lack confidence of shaking off poverty. Many farmers let out their greenhouses to migrant farmers, and they may go to work in these greenhouses to obtain meager income^[7]. Some trainings fail to conform to local actual situations and fail to satisfy local demands.

4 Major measures and approaches for increasing income of farmers and herdsmen

4.1 Constantly strengthening development of tourism Tibet is located in southwest of China and the hinterland of Qinghai-Tibet Plateau, which is the third pole of the world. Tibet is vast in territory but sparse population density. Besides, with relatively low level of industrialization, Tibet still remains in the original natural state. There are unique plateau natural ecological tourist resources. In addition, there are also alpine meadows, Chayu permafrost zone, alpine mountain desert, vast highland pastures, and world known Grand Canyon Himalayas. In sum, Tibet is full of clear water and blue sky. Such primitive and natural ecosystem is just the thing people eager to appreciate and experience. Thus, Tibet has gifted advantages in these natural beauties^[8]. Tibet has long history and ancient traditional culture, and unique cultural system and mystery flavor of Tibetan Buddhist. Picturesque rivers and lakes, beautiful glaciers and snow hills, brilliant ancient monasteries are unique cultural environment and tourist resources. All of these attract world wide pilgrims to go there. Therefore, Tibet has significant comparative advantages in developing tourism. In the new period, Tibet should continue to energetically develop tourism. In 2014, Tibet received 15.53 million tourists and obtained income up to 20.4 billion yuan^[9], accounting for 22% of total output value of Tibet. It is of great significance to further strengthen tourism infrastructure construction, enhance ecological tourism, cultural tourism, and characteristic tourism, especially rural tourism in Tibet. These will greatly promote increase of income of farmers and herdsmen.

4.2 Constantly increasing policy support of processing industries of agricultural and livestock products Industrialization of agriculture and animal husbandry is the optimum form for developing agriculture and animal husbandry and also the only way for realizing building a moderately prosperous society. Green brand will become a growth point for economic development of Tibet when people shift to focus on health from having enough food and clothes. It is able to greatly promote increase of income of farmers and herdsmen through bringing into play natural and pollution-free advantages of agricultural and livestock products of Tibet, expanding production and supply of harmless food, green food

and organic food, and building new brand of plateau green economy. Due to influence of geographical position and weak industrial foundation, government should provide guidance, support and services and provide model demonstration and information services. It is recommended to encourage farmers and herdsmen and agricultural and livestock product processing enterprises to establish a mechanism of mutual reciprocity and mutual benefit, and enterprises should guide agricultural technological departments to provide technical advisory and services for farmers and herdsmen in the whole process of production. At present, some production enterprises have difficulty in sales of their products due to weak technologies or low productivity, so it is necessary to enhance policy support and guidance.

4.3 Constantly increasing guidance on transfer of surplus labor in farming and pastoral areas Rural labor transfer is the breakthrough point of Tibetan farmers and herdsmen to increase income and get rich, is an important approach for realizing constant income increase of farmers and herdsmen, and also an essential measure for building new socialist countryside, and ensuring social stability and healthy economic development. For this, it is required to bring into full play functions of government, create fair competition labor market environment, provide high quality and efficient public services, establish perfect social security system, and implement proactive employment priority policies, to solve fair flow and fair security problem of rural labor transfer in Tibet. Besides, it is recommended to provide powerful financial support, such as in finance and taxation. Through energetically improving investment environment, it is required to improve infrastructure and public service facilities. In addition, it is recommended to strengthen economic radiating ability, encourage and guide township enterprises to develop in a centralized way, to promote business, catering and service sectors of small towns, and use characteristic industries to support long-term, healthy and sustainable development of urban areas and towns. At the same time of further adjustment of industrial structure and optimum resource allocation, it will generate huge radiation and attraction to surrounding areas, which will attract transfer of numerous rural surplus labors and realize income increase of farmers and herdsmen. Furthermore, it is recommended to increase financial support, establish proper urban social security system with social insurance, social assistance, and social welfare as basis, basic endowment, basic medical care, and minimum living security system as key points, and philanthropy and commercial insurance as supplement. Also, it is recommended to improve integrated urban and rural social security system, establish employment support system, increase investment in communication and traffic infrastructure, and improve production and living conditions of farmers and herdsmen, to provide material foundation for rapid transfer of surplus rural labor.

4.4 Constantly strengthening technical training of farmers and herdsmen It is recommended to increase fund input in elementary education of farming and pastoral areas, popularize rural compulsory education, improve teaching quality of elementary ed-

ucation, convey market awareness and competition awareness, and promote liberation of ideas of farmers and herdsmen and improvement of overall quality. With the aid of high pertinence and practical feature of vocational education, it is recommended to help farmers and herdsmen to grasp a vocational skill in the situation of low overall educational level. Besides, local government should increase investment in skill training of farmers and herdsmen, and actively organize multi-level and multi-skill training for farmers and herdsmen on a regular interval or from time to time in the manner of pre-assigned, order and entrusted training^[10]. Apart from some common skill training, it is recommended to strengthen training of farmers and herdsmen in safeguarding rights and professional quality, enhance guidance of rural labor transfer, and establish integrated training and employment service mechanism. Agricultural, animal husbandry, and agricultural development departments and colleges and universities should enhance effort of converting technologies, and use advanced technologies to promote income increase of farmers and herdsmen.

References

- [1] ZHU YJ, YIN SQ, OUZHU ML. Advances in the study of cordyceps sinensis[J]. Journal of The Central University for Nationalities(Natural Sciences Edition),2009(2): 27–33. (in Chinese).
- [2] CHENG Y. Study on promoting the increment of Tibetan peasants and
- [3] DI HH, SHI HZ. Differences in alkaloid contents and smoking quality among different leaf traits for flue-cured tobacco[J]. Chinese Agricultural Science Bulletin,2011,27(29): 85–91. (in Chinese).
- [4] WANG YJ, XIE SL, XING SH, *et al.* Study on correlation between flue cured tobacco leaf thickness and main chemical composition[J]. Chinese Tobacco Science,1997, 1(1): 12–14. (in Chinese).
- [5] WEI CY, LUO ZP, LI F, *et al.* Grey incidence analysis on major appearance traits and smoking quality of flue-cured tobacco[J]. Tobacco Science & Technology,2010(10): 48–51. (in Chinese).
- [6] HUANG QF, ZHANG YJ. Analysis of correlation between smoking quality and appearance quality of tobacco leaf[J]. Acta Agriculturae Jiangxi,2011, 23(11): 89–90. (in Chinese).
- [7] GAO JH, QIN XY, TAN ZX, *et al.* Influence of main chemical components on smoking quality of flue-cured tobacco[J]. Journal of Mountain Agriculture & Biology,2004,23(6): 497–501. (in Chinese).
- [8] BI SF. Study on the corrections between the chemical components and the smoking quality of Yunnan flue-cured tobacco[J]. Journal of Huangshan University,2005,7(3): 61–63. (in Chinese).
- [9] CHANG AX, DU YM, FU QJ, *et al.* Correlation between main chemical components and sensory quality of flue-cured tobacco[J]. Chinese Tobacco Science,2009,30(6): 9–12. (in Chinese).
- [10] YANG YM, LOU HY, WANG C, *et al.* Canonical correlation analysis between appearance quality and chemical components[J]. Journal of Yuxi Teachers College,2009,25(8): 23–29. (in Chinese).
- [11] CAI XJ, WANG XM, YIN QS. Study on the quantitative relationship between maturity and quality of tobacco leaf[J]. Acta Tabacaria Sinica, 2005,11(4): 42–46. (in Chinese).
- [12] DU YM, GUO CF, ZHANG HB, *et al.* Study on relationship between con-

- herdsmen[J]. China Tibetology,2012(3): 133–137. (in Chinese).
- [3] LIU TP, ZHUO K, GUO JB. Study on sustainable utilization of Cordyceps in Tibet[J]. Tibetan Studies, 2010(3): 114–120. (in Chinese).
- [4] CUO M. The conditions and ways for the increment of Tibetan peasants and herdsmen[J]. Journal for Party and Administrative Cadres,2007(2): 46–47. (in Chinese).
- [5] China's Tibet Network. The fiscal revenue of Tibet Autonomous Region reached 109×108 yuan in the first three seasons in 2014[DB/OL]. http://www.vtibet.com/vtibet/xw_702/jlxz/201411/t20141128_259363.html. (in Chinese).
- [6] WANG N. The evolution and correlation analysis industrial structure and employment structure of tibet[J]. The Theoretical Platform of Tibetan Development,2010(4): 6–9. (in Chinese).
- [7] QIANGNA ZG, CIREN ZG, HONG Y, *et al.* Study on the ways of operative technology training of Tibetan peasants and herdsmen[J]. Modern Agricultural Science and Technology, 2013(16): 342. (in Chinese).
- [8] CHEN T, ZHANG QZ, WU YB. Research on the Tibetan tourism economic development basing on the comparative advantage[J]. Journal of Northwest Sci-Tech University of Agriculture and Forestry (Social Science), 2005,5 (1): 37–41. (in Chinese).
- [9] Tibet China Travel Network. The reception of tourists in Tibet reached 1553×104 in the whole year of 2014[DB/OL]. <http://www.0411hd.com/xi-zang/zixun/14075400.html>. (in Chinese).
- [10] LV CP, TSIDEN YZ. Analysis on financial function of the rural labor transferring in Tiber [J]. Management for Economy in Agricultural Scientific Research,2012(4): 29–32. (in Chinese).
- [11] FENG Y, DANG XN. Study on the impacting factors of farmers' income growth in China[J]. Journal of Anhui Agricultural Sciences, 2015, 43 (20): 305–307. (in Chinese).

- tent of water soluble sugar, alkaloid, total nitrogen and taste quality of flue cured tobacco[J]. Chinese Tobacco Science,2000(1): 9–12. (in Chinese).
- [13] DENG XH, ZHOU JH, CHEN XL, *et al.* Correlation analysis on quality evaluating indexes in tobacco leaf[J]. Acta Tabacaria Sinica,2008,14(2): 1–8. (in Chinese).
- [14] WANG XQ, DENG XH, LI XZ, *et al.* Correlation, path and regression analysis between chemical components and tar in flue-cured tobacco leaves in Hunan[J]. Crops,2010(2): 32–35. (in Chinese).
- [15] BAO ZC, SONG WJ, XU YM, *et al.* Correlation analysis among quality indices in upper leaves of flue-cured tobacco[J]. Chinese Tobacco Science,2013,34(5): 23–27. (in Chinese).
- [16] DENG XH, ZHOU QM, ZHOU JH, *et al.* Canonical correlation analysis between quality evaluating indices of tobacco leaf[J]. Acta Tabacaria Sinica,2011,17(3): 17–22. (in Chinese).
- [17] ZHUANG YD, ZHANG Y, WANG F, *et al.* Analysis of polyphenols in cigarettes[J]. Tobacco Science & Technology,2004(1): 23–26. (in Chinese).
- [18] JIN YM, ZHANG MF, LIU BZ. Analysis of polybasic and higher fatty acids in tobacco[J]. Tobacco Science & Technology,2002(4): 21–24. (in Chinese).
- [19] DENG XH, YANG LL, LU ZS, *et al.* Sensory evaluation on style and characteristics of tobacco leaves from Xiangxi[J]. Acta Tabacaria Sinica, 2013,19(5): 22–27. (in Chinese).
- [20] TANG RY, ZHAO AJ, DENG X. Grey incidence analysis on major appearance traits and concentration and quality of aroma in flue-cured tobacco in Southern Hunan Province[J]. Crop Research,2013,27(6): 561–563. (in Chinese).