

Predicaments of Grassland Ecological Migration and Sustainable Development of Three River Sources

Shi Hui

School of Finance and Economics, Qinghai University, Xining, Qinghai, 810000, China

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Abstract: As a huge project of the world, grassland ecological migration of three river sources has officially been started since 2005. Although now the project has made obvious achievements, there are many predicaments in its concrete implementation process. Meanwhile, related follow-up issues have gradually emerged at the present stage of immigrant. This work briefly analyzes the predicament of grassland ecological migration and sustainable development in three river sources in order to make profound understanding of the migration project.

1 INTRODUCTION

Three-river source area is located in the southern part of Qinghai Province, adjacent to Szechwan, Tibet and Qinghai. Known as a virgin land, it is one treasured area with rich product reserve in the world. However, the increase of its utilization by humans has caused destruction of ecological environment such as the decreasing amount of forage grass and destroyed biological habitats. In 2000, three river sources were officially added to the list of nature reserves with erection of monuments. Facing the worsening ecological environment, China promoted the grassland ecological migration project of three-river source area that has attracted global attention since its official implementation in 2005.

2 BACKGROUND OF GRASSLAND ECOLOGICAL MIGRATION OF THREE RIVER SOURCES

There is a direct relationship between grassland ecological migration and the present condition of three river sources. With relative fragility, ecological environment deterioration of three river sources can be easily caused by any destruction of ecological system. The increases of utilization and use scale and scope have led to serious grassland pollution in three river sources. It endangers inherent ecological

system as well as environment of surrounding areas, causing frequent natural disasters such as land desertification and soil erosion. Under this circumstance, grassland ecological migration project is promoted for the governance of grassland environment in three river sources. The background of migration lines in the following aspects:

2.1 Increasing Soil Erosion

As the primary reflection of hostile ecological environment, obvious soil erosion has emerged due to vegetation deterioration and improper utilization patterns of grasslands in three river sources. The area of soil erosion accounts for over ten percent of the total area of three-river source area (302.5 thousand square kilometers). Varying degrees of soil erosion in drainage basins (e.g. Yangtze River, Lancang River and Yellow River) have caused shrinks of land areas and decline of land utilization. Facing serious soil erosion, grassland ecological migration has to orderly proceed for further reforestation of arable land, protection of steppe vegetation and the sustainable development of three river sources.

2.2 Serious Wetland Degradation

As the storage of water and nutrients, wetlands are ideal locations of vegetation growth and multiply. However, serious wetland degradation is another issue caused by the destruction of ecological environment in three-river source areas. The loss of

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these wetlands leads to the failure of inherent storage capacity in swamps, which undoubtedly is a major disadvantage for three-river source areas. To a large extent, it impeded the grassland development of three river sources. Meanwhile, due to short supply and lack of nutrients, vegetation has been close to death. Serious wetland degradation has been a huge threat to three-river source areas, forcing humans to take measures to stop its development.

2.3 Pest Invasion

For grasslands of three river sources, its hostile ecological environment has decreased resistance ability against outside. Increasing amount of weeds caused rapid reduction in areas of utilizable grass. Meanwhile, the invasion of natural enemy rodents also led to the sharp decline of grasslands due to their consumption and destruction. Caterpillars, in addition, are responsible for large bare lands presented in several areas. Pest invasion undoubtedly worsens the already weak grassland situation of three river sources, which accelerates sharp reduction of grasslands and destruction of ecological environment.

2.4 Degeneration of Ecological System

Various rare animals lived on grasslands have positive significance in sustainable grassland multiply of three river sources. However, due to hunting of animals by humans, the amount of rare animals sharply declines, including white-lipped deer, blue sheep and Tibetan gazelles. This has brought a critical strike to sustainable grassland development of three river sources.

Three-river source areas are faced with phenomena such as biological system degeneration, pest invasion, wetland degradation and soil erosion. Therefore, ecological migration is necessary for grasslands of three river sources in order to promote its sustainable development of ecological system and recovery of ecological environment.

3 PREDICAMENT OF GRASSLAND ECOLOGICAL MIGRATION OF THREE RIVER SOURCES

With increasingly serious destruction of ecological system and environment, well multiply of grasslands has become an important issue in three-river source

areas at present. Therefore, it is necessary to carry out ecological migration project. In the process, however, several predicaments are required to be broken through for smooth project implementation. Currently, the unsolved issues in ecological migration mainly lines in the following aspects:

3.1 Mass Misconception

Due to the lack of the cognition to ecological migration and environmental protection, resistance and reactionary aspect emerge in implementation process, which is undoubtedly a predicament of grassland ecological migration in three-river source areas. The concept of ecological environmental protection lacks sufficient publicity in most areas of China. Many people are just limited in knowing or verbal recognition of it. When there are conflicts between ecological environment and personal interests, opposite voice of the project becomes louder. Therefore, for the large long-term migration project, only correct mass conception can fundamentally solve the issue and guarantee the project implementation.

3.2 Mass with Low Quality

Grassland ecological migration project of three river sources has to guarantee the recovery of ecological environment and the basic living of immigrants as well as the development of immigration areas. However, for people living in three-river source areas, most of them are herdsmen with limited education currently. Many families do not support children to receive education, and some even take measures to evade education. Failure of education and teaching work has led to relatively low quality and limited skills of people in the areas. Meanwhile, without other labor skills, re-employment of local people is unable to be effectively arranged. Narrow channels for employment have made negative effects on the development of local politics, economy and culture.

3.3 Cultural Difference

As localities of minorities since ancient times, three-river source areas have created own unique culture that is different from other areas. The cultural difference is quite unfavourable to local migration work and has become an important issue in migration process. Grassland ecological migration project of three river sources includes the transfer of people as well as culture (e.g. material culture,

immaterial culture and food environment). In the process, many immigrants to other cities have shown cultural maladjustment and exclusion.

3.4 Choices of Migration Patterns

Current optional migration patterns of ecological migration in three-river source areas mainly include regional migration and small-town resettlement. However, based on local immigrant condition, these patterns have exposed different issues. For instance, though small-town centralized settlement is beneficial for infrastructure construction and economy development, most people still hardly support and even exclude such migration patterns.

3.5 Subsequent Guarantee

The smooth migration implementation of people in three-river source areas requires subsequent guarantee of employment, education and medical treatment after migration. Meanwhile, life style of residents in immigration areas requires proper adjustment for the promotion of migration work. However, with dissatisfaction of subsequent guarantee, many immigrants still fail to adapt to their new life and production mode at present.

4 SUSTAINABLE DEVELOPMENT OF GRASSLAND ECOLOGICAL MIGRATION OF THREE RIVER SOURCES

Essentially, grassland ecological migration of three river sources is a huge project with broad scope of influence. It has positive effects on ecological protection, restoration and environmental development of grasslands in three-river source areas. Currently, part of ecological migration has been carried out, while sustainable development fails to be implemented in the process. Therefore, it is necessary to analyze the sustainable development of grassland ecological migration of three river sources.

4.1 Cognition Promotion

As localities of minorities all the time, three-river source areas have relatively old life and production mode. People's traditions and ambiguous cognition of natural ecological environment contributed to the

deterioration of local ecological environment. Therefore, faced with current serious environmental destruction, further cognition promotion and ecological consciousness intensification are required for rational utilization and effective protection of local grassland ecological environment. Meanwhile, positive cooperation of local people in ecological migration will provide a certain period of time for ecological environmental restoration of grassland areas.

4.2 Establishment of Harmonious Relationship between Human and Nature

Harmony between human and nature is the key to the development of social development and nature. Harmonious relationship between human and nature is beneficial for ecological environmental restoration of grasslands. However, cases such as conflict, objection and even improper behavior emerged in grassland ecological migration of three river sources. Therefore, promotion of populace quality and harmonious relationship between human and nature are both required for final realization of population decline, emission reduction and pressure reduction.

4.3 Policy Support

Policy support of government is the basic guarantee of grassland ecological migration of three river sources. Migration project has to take the restoration of ecological system and new life of immigrants into consideration. Meanwhile, based on living standards, corresponding compensation mechanism has to be established for financial compensation of immigrants. Solid foundation of material life for immigrants is required for long-term development. In addition, government support of cultural education has to increase, especially in the perfection of organizations of medical treatment, health and education. Finally, immigrants are rationally resettled without worries behind.

4.4 Establishment of Perfect Migration Policies

In the ecological migration process, perfect migration policies will guarantee grassland sustainable development and provide policy support for grassland ecological development. Meanwhile, several measures are required, such as strict use limits of grasslands, prevention of excessive deforestation and protection of water and vegetation.

4.5 Perfection of Legal Supervision and Protection

Perfection of legal supervision and protection is an important measure for the promotion of grassland ecological migration of three river sources. Firstly, legal framework relies on the perfection of *Grassland Law* and *Environmental Protection Law*. Secondly, publicity and popularization of legal knowledge are required in order to make the masses comprehend legal restraints and consciously perform legal obligations. In addition, when there are behaviors endangering ecological environment and natural environment, strict enforcement of law is needed for the alert and constraint of mass behaviors.

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