Brief Report

Sustainable Development and Transformative Change in Tibet, China, from 1951 to 2021

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Abstract: The Tibet Autonomous Region (Tibet) has undergone significant economic development, poverty alleviation, and improvements in social indicators like life expectancy and healthcare over the past seventy years since its establishment within the People’s Republic of China in 1951, particularly since the 1980s. This article tracks 16 social, economic, and ecological indicators for the past several decades, as well as levels of economic assistance provided to Tibet by other Chinese provinces and the Chinese central government. The results show that since 1951, Tibet has developed rapidly, with nearly all the socioeconomic indicators improved, and the speed of change has been much faster than other provinces in China. Environmental indicators also show a significant improvement regarding biodiversity conservation and tree coverage. However, despite progress in many aspects within Tibet, indicators such as the illiteracy rate and uneven development between urban and rural areas still lag significantly behind the national average. This report provides crucial insights into Tibet’s rapid development and existing disparities, aiming to guide targeted governmental interventions for reducing inequality and driving transformative change.

Keywords: Tibet; development; assistance; inequality; urban–rural gap

1. Introduction

More than 70 years ago, in October 1951, Tibet transitioned from a largely feudal regime into a socialist regime formally referred to as Tibet within the People’s Republic of China [1]. At the 70th Anniversary, Tibet celebrated its achievements of the past 70 years, such as poverty alleviation, social equity, and environmental improvement [2]. Examining Tibet’s seven-decade trajectory helps understand its development and the persistent disparities between Tibet and other Chinese provinces, as well as between urban and rural areas within Tibet.

Since the 1950s, Tibet has seen significant improvements in living standards and economic growth, often surpassing the national average. Central government investment since 1984 has greatly enhanced Tibet’s infrastructure and socioeconomic conditions, narrowing the gap with other Chinese provinces [3,4]. However, many Western scholars have raised the problem that Tibetans may end up excluded or marginalized by such subsidy-driven development due to a lack of self-determination [5]. Moreover, some scholars also claim that the construction of large-scale projects has degraded the environment in Tibet [3,6], ignoring the accessibility and connectivity that these infrastructures bring, and also the environmental improvements because of the policies that try to protect Tibet and the whole Qinghai–Tibet plateau as an ecological barrier [7,8]. It also needs to be acknowledged that the gap between Tibet and other provinces still exists [9], and within Tibet, there are also significant regional differences [10]. Ideological differences between Western and Chinese scholars complicate understanding of Tibet’s changes, making a
thorough examination of social, economic, and environmental indicators crucial for objective assessment and future policy development.

This study employs 16 indicators encompassing economic, social, and environmental aspects, utilizing methodologies from economics, sociology, and environmental science to systematically analyze the development of Tibet over the past 70 years. By examining these 16 indicators, we aim to offer an overview of Tibet’s economic and social development, particularly in narrowing the gaps with other regions in China and identifying the policies and measures that have contributed to these improvements. This study seeks to provide a scientific basis for formulating and adjusting policies for Tibet’s development, fill research gaps in regional development, and help the international community gain a more comprehensive and objective understanding of Tibet’s current development and challenges.

2. Literature Review

2.1. Challenges to Environmental Protection

Balancing development and the environment in Tibet are crucial to avoid environmental degradation. Recently, scholars have increasingly analyzed Tibet’s environmental changes, highlighting its complex development. Since 2000, while the scale of human activities has expanded, the impacts on the environment gradually transformed from a net degradation to a net recovery [11]. Studies have indicated the constraint of Tibet’s fragile ecological environment on the development of secondary industries, intending to propose several feasible strategies for balancing ecological protection with industrial and economic development [12]. While analyzing the coupling relationship between economic development and the ecological environment in Lhasa, the capital city of Tibet, Li proposed policy recommendations such as optimizing industrial structure and strengthening green supervision [13]. These studies all emphasized the need to formulate sustainable development strategies to alleviate ecological degradation while pursuing socioeconomic development in Tibet.

2.2. Challenges to People’s Livelihood

From the perspective of sustainable socioeconomic development, Tibet’s urban economic development faces significant livelihood challenges: the dominance of traditional agriculture, low population density, limited employment opportunities, the fragile environment, and its low carrying capacity [14]. Because of this environment, the livelihoods of people in Tibet are vulnerable to many uncertainties [15]. For example, a snow natural-disaster may cause local households to fall back into poverty, as many in high altitudes depend on grazing [16,17]. Implementing sustainable development mechanisms, such as farming and livestock insurance and diversifying livelihoods, is crucial to mitigate this risk [18,19].

2.3. Government Support

Tibet’s development is heavily supported by China’s central government and other provinces. The 2000 Western Development Strategy aimed to leverage Eastern China’s economic capacity to drive socio-economic growth in the west. Finance, expertise, and policy support of Tibet has become a national system that promotes its economic and social development through continuous support and improvement of the assistance system [20,21]. Fiscal support for agriculture has had a positive role in promoting the development of Tibet’s agricultural economy [22,23]. Tibet’s science and technology innovation policies have also promoted high-quality economic development [24]. The implementation of these policies provides strong support for Tibet’s industrial structure adjustment, agricultural economic development, scientific and technological innovation, poverty alleviation, and environment restoration, and promotes Tibet’s sustainable development.
Our goal is to provide a rough synopsis of the economic and social development in Tibet, especially from the perspective of gaps between Tibet and the rest of China, the extent to which they have narrowed or improved, and if so, what development measures and government policies might have contributed to such changes.

3. Materials and Methods

Data for the social, economic, and ecological indicators in this study were obtained from the following sources: the China Statistical Yearbook (1951–2022) (https://www.stats.gov.cn/sj/ndsj/, accessed on 15 June 2024); Tibet Statistical Yearbook (1951–2022); China Population Statistical Yearbook (1951–1987); China Population & Employment Statistical Yearbook (1988–2022); Central Budget and Final Accounts Public Platform (https://www.mof.gov.cn/zyyjsgkpt, accessed on 15 June 2024); and the China Statistical Yearbook on Environment (1998–2022). The indicators used in this article were selected to cover basic aspects of society, including population, economic income, transportation, education, medical care, etc., as comprehensively as possible, and were also based on their connection with the UN sustainable development goals (SDGs) and the overall availability of data.

The data were analyzed using time series analysis, and changes in the indicators, along with time, were presented on the coordinate axis to show the dynamics of the development of Tibet. Information about funding assistance from other provinces in China, as well as major policy initiations on Tibet work symposiums by the Central Committee of the Communist Party of China, was collected online.

4. Results

4.1. Rapid Development of Tibet

In the past 70 years, most of Tibet’s social, economic, and ecological indicators demonstrated substantial progress (Figure 1). Before 1951, 5% of Tibetan elites, including local administrative officials, nobles, and upper-ranking lamas in monasteries, owned 95% of the region’s resources and property, leaving only the remaining 5% for the rest of the population [10]. By the end of 2020, extreme poverty had been eliminated in Tibet, and the standard of living had increased substantially. In these 70 years, Tibetan’s average life expectancy increased from 35.5 to 71.1 years, and GDP increased from 129 million CNY to more than 190 billion CNY. Accessibility within Tibet, as well as between Tibet and other Chinese provinces, has also been largely improved. Despite environmental degradation resulting from increased accessibility and development, many ecological indicators, such as the area of nature reserves and the number of endangered species, have shown improvement since the 1980s.

Tibet has also shifted from its traditional reliance on agriculture and animal husbandry towards diversified industries, with emerging tertiary industries now serving as one of the main drivers of its economic growth. By the end of 2020, tertiary industry in Tibet had accounted for a remarkable 50.1% of its GDP. Benefiting from Tibet’s abundant tourism resources and unique ecological conditions, the cultural tourism industry is rapidly flourishing. In 2019, Tibet realized tourism revenue of CNY 55.928 billion, with tourism revenue accounting for 32.94% of its GDP, indicating an overall upward trend in comprehensive development. In terms of energy development, Tibet is also making significant progress. While actively promoting sustainable and green energy utilization to protect its fragile ecological environment, Tibet made remarkable achievements in 2019, with the proportion of renewable energy consumption in Tibet accounting for 88.7% of the total electricity consumption, and the proportion of non-hydropower renewable energy consumption accounting for 20.9%, ranking first and second respectively at provincial level [19]. The rapid development of these emerging industries not only boosts Tibet’s economic growth but also provides more employment opportunities for residents, thereby promoting comprehensive socioeconomic development.
Over the past 70 years, Tibet has seen significant environmental improvement initiatives. These efforts have focused on various areas such as conservation, afforestation, wildlife protection, and national parks. Many policies and projects were implemented to protect Tibet’s unique ecosystems, including establishing nature reserves and protected areas, pushing forward conservation programs for endangered species such as the Tibetan antelope, snow leopard, and Tibetan wild yak. There are 47 nature reserves in Tibet in 2024, with an area of 0.41 million km², around 33.68% of the total area [25]. The forest and grassland coverage rates are 12.31% and 47% in 2021, respectively, and the natural environment is gradually improving. With these environmental restoration policies and projects, the number of endangered species has greatly increased [26,27], especially animals like the Tibetan antelope (*Pantholops hodgsonii*); Tibetan wild ass (*Equus kiang*); Tibetan gazelle (*Procapra picticaudata*); blue sheep (*Pseudois nayaur*); wild yak (*Bos mutus*); and brown bear (*Ursus arctos pruinosus*) [28–30]. The number of Tibetan antelope has recovered from less than 70,000 in the 1980s and 1990s to around 200,000 by 2015 and has since surged to around 300,000 in 2021 [30,31].

4.2. Causes of Development in Tibet

Much of this development has occurred alongside significant central fiscal transfers of payments and assistance from other Chinese provinces [15]. Central fiscal transfers largely made up Tibet’s revenue and expenditure gap compared with the rest of China, accounting for 90% of the region’s total governmental expenditures (198 billion CNY) in 2019 (see Figure 1). The central government has also issued a series of policies to encourage China’s more developed provinces and cities to provide Tibet with funding assistance, technology transfer, infrastructure investment, industry building, talent support, and so forth since 1994, at the third meeting on work in Tibet. Moreover, each city within Tibet has built assistance partnerships with one or more other provinces (or cities) of China. For example, Guangdong Province invested CNY 430.71 million in the Tibetan city of Nyingchi in 2018 to improve its industrial structure, education quality, and medical
facilities. Shanghai has more than 30 years of partnership relations with Shigatse city and has contributed to knowledge and technology transfer, capacity building and training, infrastructure investment, resources donation, and leadership exchange and communication. From 1994 to 2020, approximately CNY 50 billion was invested in more than 10,000 projects in Tibet by other provinces and cities, which has greatly contributed to local development.

Educational assistance is also a key initiative, including establishing new schools and sending outstanding teachers from other provinces to Tibet, as well as setting up schools for Tibetan students in eastern cities such as Beijing and Tianjin [32]. Since 1985, Inner Tibet junior high school classes have been established in 20 secondary schools in 13 provinces and municipalities nationwide, and Inner Tibet senior high school classes have been established in 30 secondary schools in 20 provinces and municipalities. Additionally, Inner Tibet vocational classes were launched in 12 economically developed regions in the eastern and central parts of China in 2020, such as Tianjin and Hebei. This provides an important platform for cultural exchanges between Tibet and the other parts of China [33].

Since 13 May 2019, Tibet has further increased its financial investment in medical and health care with the help of other provinces. The government is actively strengthening grassroots medical infrastructure construction, increasing public medical and health equipment, and introducing and cultivating professional medical personnel. With the construction of medical centers in Tibet, the coverage rates of township and village health centers have reached 94.4% and 42.4%, respectively [34].

4.3. Indicators Need to Be Improved

Despite the reduction in economic and social disparities between Tibet and the rest of China, a significant gap nonetheless remains between Tibet and the average level in China, and uneven development within Tibet has also persisted (see Figure 2). Uneven development of course characterizes China as a whole. After the reform and opening up of China’s economy in 1978, economic development in coastal areas far exceeded that in western provinces, including Tibet [35]. This gap between eastern coastal and western inland China is expanding [36], especially regarding GDP per capita, and illiteracy rate. In Tibet, the urban–rural gap is also greater than in China as a whole, as illustrated in Figure 2D.

Figure 2. Development disparity between Tibet and AC and within Tibet. Disparity between Tibet and AC in (A) GDP per capita and (B) illiteracy rate over 15 years old. (C) Uneven development between provinces within Tibet. (D) Urban–rural gaps in Tibet and its comparison with AC.
Tibet has developed substantially over the past 70 years, especially over the past three decades, with the help of policies for Tibet development. This economic growth has had positive effects on other aspects of development. For example, investment in medical care and improvement in living standards have played an important role in expanding life expectancy, especially in the harsh environments of the Qinghai–Tibet Plateau. Literacy rates have improved, but remain low compared to the rest of China.

5. Conclusions and Discussion

Significant social, economic, and ecological progress has been achieved in Tibet in the past 70 years. This progress is largely attributed to substantial fiscal transfers from the central government and aid from other provinces.

Due to China’s policy of redistributing resources to address regional disparities, Tibet’s development heavily relies on external support, which may undermine its development autonomy [3,37,38]. Proponents argue that this approach has established a basic framework for socio-economic development, strengthening national unity and enhancing Tibet’s productivity [39,40]; critics, however, contend that it increases Tibetan dependency on external assistance, compromising their autonomy and self-determination [5,41]. This debate remains contentious, but the current model of developmental assistance is unlikely to change soon.

Despite external support, Tibet has not yet achieved China’s national average development levels and faces widening regional disparities [41]. Political and geographic factors, including geopolitical tensions with India and extreme environmental conditions, exacerbate these challenges [38]. Reaching China’s goal of common prosperity for everyone is likely to require not only economic redistribution but also a serious examination of the atmosphere of dependency that has been created by financial transfers, to further leverage opportunities for sustainable development and self-development.

Regarding the balance between environmental protection and economic development, Tibet should take a series of feasible measures to achieve sustainable development. For example, an ecological compensation mechanism should be established and improved to provide financial compensation to residents of ecologically protected areas to ensure that they could improve their living standards while protecting the ecological environment. The central and Tibetan governments should collaborate with local agricultural bureaus to promote sustainable agricultural and pastoral practices to reduce environmental degradation, and to promote afforestation and wetland restoration projects to increase forest cover and wetland protection further.

In terms of improving and resolving livelihood issues, raising the level of education is paramount. Investment in education infrastructure should be increased, especially in rural and remote areas, the quality of education should be improved, and literacy programs for adult education should be implemented to reduce the illiteracy rate, which is as high as 30 percent, and to narrow the gap with the national average. At the same time, healthcare services should be strengthened, especially in remote and rural areas, and efforts should be made to raise health awareness among the population.

Government policy is also a key component of Tibet’s future long-term development. The central government should strengthen policy coordination with local governments to ensure effective and continuous policy implementation. The Government should also continue to invest in improving transport infrastructure, enhancing accessibility, and promoting regional economic integration. Attention also needs to be paid to the impact of natural disasters, such as extreme weather, on the livelihoods of the population, and the provision of necessary assistance and protection.

6. Limitations and Future Outlook

Overall, this paper has achieved notable results in exploring the long-term development of Tibet, but several limitations remain. Some of the data for Tibet, particularly on social, economic, and environmental indicators in remote areas, may not be
comprehensive or accurate enough. The dynamic nature of policy implementation and its effects complicate the full assessment of its long-term impact within a short timeframe. Additionally, the causes and solutions to the development imbalance between urban and rural areas in Tibet have not been explored in depth.

In the future, it is hoped that data quality can be enhanced by improving data collection methods, establishing a long-term dynamic monitoring and evaluation mechanism for a more comprehensive assessment of policy effects. Efforts will also be made to further refine the analytical framework and deepen the study’s content, providing more targeted and feasible recommendations for sustainable development and transformational change in Tibet.

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